The American Artisan
And Hardware Record

Vol. 57. No. 3. CHICAGO, JANUARY 16, 1909. $2.00 Per Year.

JAN 22 1909

TURN BUCKLES

A full line of Bolts, Bolt Ends, Rivets, Lag Screws, Nuts, Washers and Carriage Hardware.

COLUMBUS BOLT WORKS, COLUMBUS, OHIO.

GET THE LIVE LINE

"AMERICAN SEAL"

Elastic Oil Roofing Cement, Stove Putty and Asbestos Furnace Cement

For Furnaces, Stoves, Ranges and Roofs.

Jobbers write to-day for prices

THE

Wm. Connors Paint Mfg. Co.

Makers. TROY, N. Y.

Western Agents: Priestley-Voshardt Co., 194 Mather St., Chicago, Ill.

Southwestern Agents: Stockhoff Supply Co., 107 N. Main St., St. Louis, Mo.

The LARGEST Exclusive WHOLESALE Net Price Catalogue House in the World of

Cutlery, Hardware and House Furnishing Goods

Large Catalogue Will Be Sent on Request to Merchants Only.

CHAS. WEILAND

147-149 Chambers Street, 129-131 Reade Street, New York City

Cutlery and Mechanics' Tools my Specialty.

MATCHLESS

Spring and Pivot Hinges

Floor Hinges, Jamb Hinges and Hardware Specialties.

The fact that Matchless Spring Hinges have been on the market since 1895 and that in that time not one set has required repairs from fault of hinge speaks very well for their serviceability and wearing qualities.

If your Jobber cannot furnish them write us.

LAWSON MFG. CO.

40 Dearborn St., Chicago, Ill.

WORLD'S BEST

TUBULAR TRACK

DOOR HANGER

Our Track has the SLIDABLE Bracket, the feature that has made World's Best Hangers so popular with the Building Trade.

Write for Catalog and Prices

SAFETY DOOR HANGER CO.

Ashland, Ohio, U. S. A.

"NEVER-BREAK"

TRADE MARK

Catalog Free

"NEVER-BREAK"

STEEL SPIDERS, GRIDDLES AND KETTLES

WILL NOT Scale Off like cheap enamel.

WILL NOT Scorch or Burn like light fry pans and skillets.

WILL NOT Absorb Grease or Flavors like cast Iron.

THE AVERY STAMPING CO.

CLEVELAND, OHIO

Sole Manufacturers

"NEVER-BREAK" Goods.

The Highest Grade File Made.

DELTA

TRADE MARK DELTA

DELTA FILE WORKS

CARVER FILE CO.

PHILADELPHIA, PA.

An independent organization not connected with the trust in any form, shape or manner.

FILES OF QUALITY

FILES

The File You Will Eventually Use.

PULLMAN SASH BALANCES

Are you selling them?

IN USE EVERYWHERE

Send us your orders

PULLMAN MFG. COMPANY

SOPHIA STREET

ROCHESTER, N. Y., U. S. A

100

Tinners' Patterns

Complete for

$1.00

Sent Postpaid on Receipt of Price

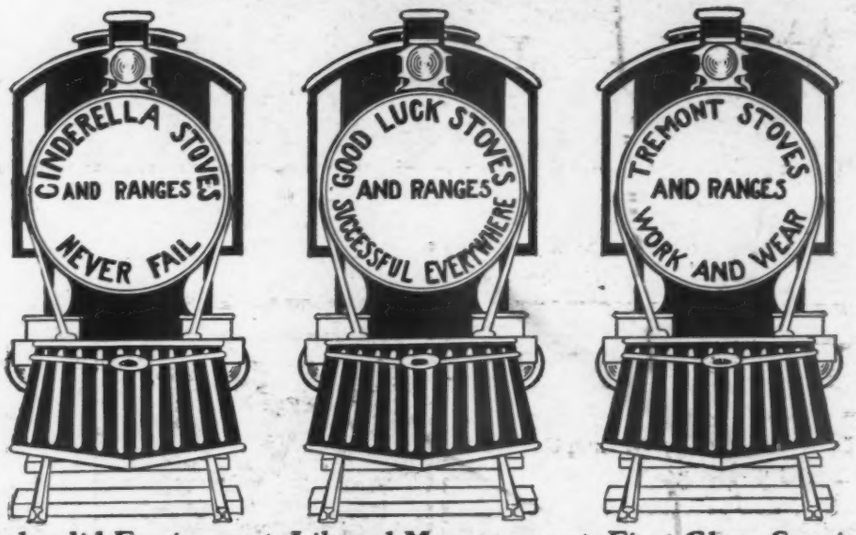
Daniel Stern

383 Dearborn Street - Chicago

"The lines that are liked."

THE PITTSBURGH LINES

In Touch with the People
North, East, West and South



Splendid Equipment, Liberal Management, First-Class Service

Track ballasted with "Experience." Good Goods are the "Rolling Stock." Fair Prices are the "Motive Power."

Our "Signal System" Guarantees Exclusive Agencies

Merchants who patronize "Our Lines" are continually passing "Mile Posts of Prosperity" on their journey to the town of "Take-your-ease."

Illustrated Booklets and Tariff Sheets sent on application

Stove & Range Co. of Pgh.

Pittsburgh GOOD VALUES IN STOVES **Penna.**

The 11th in a Series of Reasons Why the KELSEY is the Best Warm Air System

There's a PROFIT in it for YOU!

You know the trouble you've had in the past to land heating jobs—with an ordinary furnace! It's been a question of **price.** Because you had nothing else on which to base your reason why you ought to have the job.

We've always said that the Dealer who has the exclusive agency for the **KELSEY** Warm Air Generator can easily have the cream of the heating business in his locality.

And that is true, — not merely in two or three cases, — but in nearly every one of the 800 **KELSEY** Agencies.

The **KELSEY** Dealer does **not** talk price,—he tells about the immense heating capacity of the **KELSEY,—more than double** that of the ordinary furnace of equal size; he talks about the even distribution of warm air,—to every part of the building,—something impossible with the ordinary hot air furnace; he explains **with facts and figures,** how the **KELSEY actually burns less fuel** for the volume of warm air produced; he points to over 34,000 **KELSEY** Generators in successful operation today,—in small cottages, in city homes, in magnificent country estates, in schools and churches of all sizes.

And with live, interesting facts to present—that swing the prospect around to your way of thinking,—the question of price dwindles away. Not in theory,—but in actual, every day work!

And before you know it,—you have the job,—at your own figure,—**with a profit in it for you!**

If you want a live proposition, that gives a living profit,—better ask for the **KELSEY** Exclusive Agency in your town,—before somebody else gets it

There's Money In It For You!

KELSEY HEATING COMPANY, Syracuse, N. Y.

NEW YORK, 156 Fifth Avenue

CHICAGO: Van Evera & Lewis Mfg. Co., 104-106 W. Lake Street

James Smart Mfg. Co., BROCKVILLE, ONT., Sole Makers for Canada

MONITOR RADIATOR

The Base Burner With Five Front Flues

Handle this stove. It means more sales and bigger profits.

The greatest business and profit producer on the market

The most valuable asset any dealer can have is the agency for the

Monitor Radiator

the Base Burner with

1683 Square Inches

more radiating surface than any other stove made.

Do not place your order for 1909 without communicating with the manufacturers.

MONITOR STOVE & RANGE CO.
CINCINNATI OHIO.

Distributers

For the State of Michigan, Morley Bros., Saginaw, Mich. For the States of Minnesota, North and South Dakota and Montana, The Great Western Stove and Repair Co., Minneapolis, Minn. For the State of Wisconsin, Morley Murphy Hardware Co., Green Bay, Wis. For the States of Nebraska, Wyoming, Western Iowa and the Black Hills, Paxton & Gallagher Co., Omaha, Nebraska.

FOSTER'S OPAL

A New Addition To Our Line

which we guarantee to be the equal of any Range (and superior to many) in construction and baking qualities.

A SURE SELLER

Just the kind of Range for which there is a demand and just the one YOU want to handle—a Range that sells at a Reasonable Price and which can be heartily recommended.

FEATURES—Six Holes on Top and the covers and centers are extra heavy. Large, Roomy Fire-Box with no dead corners to collect ashes. Duplex Grate. Reservoir made of cast iron with porcelain lining. Balanced oven door so constructed that a new spring can be put on in one minute without taking the range apart or putting the hand on inside.

Our line of Stoves and Ranges merit your investigation! They are ALL Trade Winners. **Write Today!**

THE FOSTER STOVE COMPANY, Ironton, Ohio

Western Branch, 1306 W. 8th St., Kansas City, Mo. F. C. TUTTLE, Manager

1894 "Quick Meal" Gasoline Range.

"Quick Meal" Coal Ranges

Have been sold and advertised extensively.

SAVE MONEY

by selling "QUICK MEAL" GASOLINE STOVES.

By handling the two seasonable lines under one name, one advertisement helps both, one sale recommends the other.

"Quick Meal" Gasoline Stoves will help you build up your trade as their standard of high quality is unquestioned, their styles the latest, their operation the best.

RINGEN STOVE CO.

DIVISION OF AMERICAN STOVE CO.

ST. LOUIS, MO.

SAN FRANCISCO, CAL. **Indiana St., Between 20th and 21st**

CATALOGUE NOW READY

The ONE Remedy

No. 3318
Weight
390 lbs.
Price Net.
$19.95
Full Nickle
Trimmings

This Is a Good One, It's a
LANDAY

The year 1908 is but a memory. Its mistakes and failures are things of the past.

BUT these same mistakes and failures must not form a part of 1909 history.

Too many dealers were unfortunate enough in the past year to see their competitors quietly gather in the majority of the steel range sales in their vicinities. To see profits that might have been theirs slip into the other fellows' pockets.

But this must not happen during 1909. A remedy must be applied to reverse these things. Mr. Dealer:—**There is only one remedy,** It is the agency for

LANDAY Matchless Steel Ranges

Maybe the other fellow already has the **LANDAY** agency. If that is so your case is hopeless, but if he hasn't he is unfortunate because the control of the range business in your town is within your grasp.

Our catalog tells just why **LANDAY** Ranges sell so readily. Tells about the high grade materials of which they are made. Tells of the **Guarantee Bond** we issue with each range. Tells—but get it, you will always be glad you did.

CHOICE TERRITORY OPEN FOR HUSTLING SALESMEN

Landay Steel Range Co., 2621 N. 15th St., St. Louis, Mo.

VAN'S

Patent Improved Wrought Steel Portable

RANGE

For Hotels, Restaurants, Public Institutions, Boarding Houses and Private Families. All kinds of Hotel Implements for culinary purposes. Manufactured and for sale by

The
JOHN VAN RANGE CO.
Southwest Corner
5th and Broadway
CINCINNATI - - OHIO

GAS and COAL RANGE

The Champion

INTERCHANGEABLE

This is not a combination range nor a coal and gas range bolted together, but an INTERCHANGEABLE range that can be instantly changed from coal to gas or from gas to coal. There is not a range on the market which can compare with it for adaptability, and the way it is selling wherever shown, clearly demonstrates that its admirable qualities are appreciated.

Either natural or artificial gas can be burned as the burners have adjustable mixers. The escape of gas when coal is being burned is prevented by an automatic shut-off.

It is a fuel saver, perfect in operation, every heat unit is utilized and it will sell.

Write for Descriptive Matter and Prices.

Champion Steel Range Co.
3950 W. 25th St., CLEVELAND, OHIO

Munsell's Mica

EUGENE MUNSELL & CO.
NEW YORK AND CHICAGO

THE STANDARD FOR HIGH GRADE STOVES

Two Great Lines of Specialties, the Great RETORT Line of Heaters—The Great HOME PRIDE Line of Malleable and Steel Ranges.

It is not often that two great lines of Specialties are produced in one factory.

Neither of the two lines need introduction to the retail trade of this country, and the dealer who controls both lines is

OUT OF THE LINE OF COMPETITION.

Our representatives are now on the road and will call on you as soon as possible.

In the meantime, if you desire any information, address,

MARION STOVE COMPANY
MARION, INDIANA

Sole Manufacturers of Retort Heaters and Home Pride Malleable Steel Ranges

THE ROYAL QUALITY

All that could be desired in a Range and one which offers every dealer a Royal opportunity to add a big seller to his line.

THE BODY is made of blue steel, lined with asbestos, held in place by sheet steel covering, well riveted.

THE OVEN TOP is arched. Oven bottom is well braced to prevent buckling or warping.

THE FIRE-BOX is arranged with reversible duplex grate, and hot blast linings.

THE RESERVOIR is porcelain lined.

You will like this range and so will your customers. It may be had with the new leg base or with cabinet base. Write for further particulars.

QUALITY STOVE & RANGE CO., - Belleville, Ill.

CUT THIS OUT

To the Publishers
The American Artisan and Hardware Record
355 Dearborn Street, CHICAGO

Please send us THE AMERICAN ARTISAN each week for three months. At the end of that time we will remit Two Dollars for one year's subscription, or 50 cents in case we decide to discontinue.

NAME .....

ADDRESS .....

TOWN .....

STATE .....

The Advance Radiator Co.

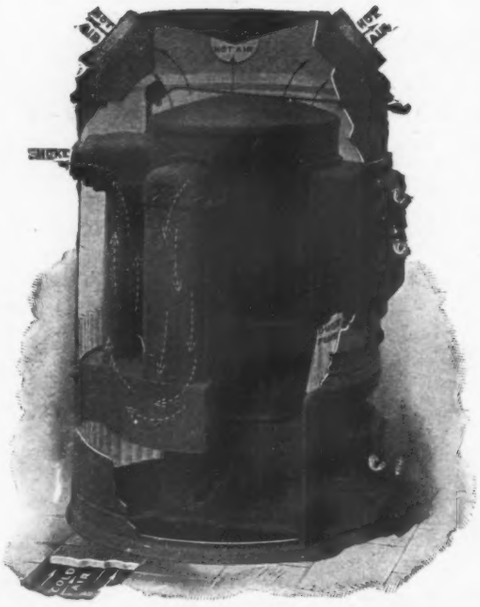
MANUFACTURERS OF

Steam and Hot Water Boilers and Radiators
Adjustable Steel Pipe Hangers
The Improved Holland Cupola

LET US QUOTE YOU PRICES

The Advance Radiator Co., Syracuse, Ind.

BOYNTON'S



Square Pot Steel Dome Furnace

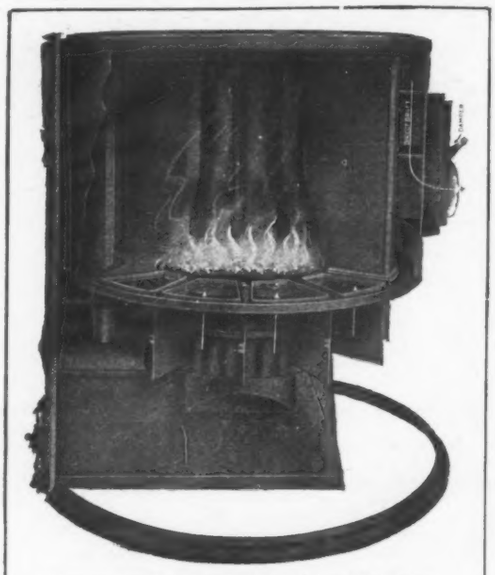
Another of the many different styles of Square Pot Furnaces with genuine talking and selling points now being manufactured and sold to the trade.

SEND FOR OUR COMPLETE CATALOGUE.

THE BOYNTON FURNACE CO.

147-149 Lake St., CHICAGO **207-209 Water St., NEW YORK**

FAULTLESS SCIENTIFIC HEATER



Showing Flue Construction, Fire Pot and Extension Flue Partitions.

The Highest Type of Furnace Perfect in Every Detail

The most severe tests for two years prove IT TO BE AN UNQUALIFIED SUCCESS

The air is heated in separate currents and can be carried long distances and to any desired part of the house. No overheated air is possible with this heater.

The number of square feet of radiating surface, compared with the grate surface, is **much greater** than in any ordinary furnace.

No other Heater of this class can be so easily mounted.

An examination will convince **you** and you can as readily convince your best class of customers.

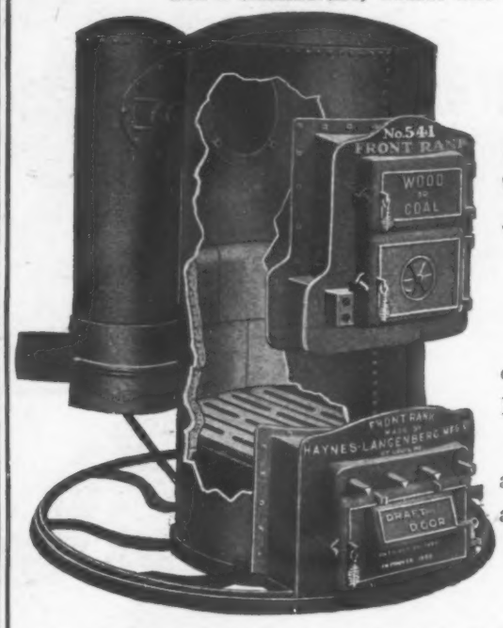
The **exclusive agency** for this **Incomparable Heater** will be a valuable asset to any good furnace dealer.

THE GRAFF FURNACE COMPANY

208 WATER STREET, NEW YORK.

It Will Be a Cold Day

and a considerably colder one than any of us have ever seen, at that, when



FRONT RANK STEEL FURNACES

will be unable to keep every room in the houses in which they are installed comfortably supplied with pure warm air.

Of course this wouldn't be possible if they weren't correctly constructed, but their ABSOLUTELY CORRECT CONSTRUCTION is their forte.

Here is a furnace that will build up a reputation for any dealer, a good, substantial furnace, a great fuel saver, absolutely gas-tight—a guaranteed satisfaction giver.

Catalog and terms will be sent upon request.

HAYNES-LANGENBERG MFG. COMPANY

4045-4057 Forest Park Blvd.
ST. LOUIS, MO.

211-213 Lake Street
CHICAGO, ILL.

Superior Furnaces Imperial Boilers

"The Coal Savers"

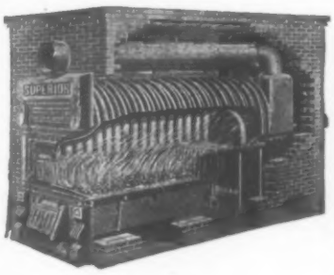
The Line for every ambitious heating contractor to handle for 1909 and 1910 and every other year.

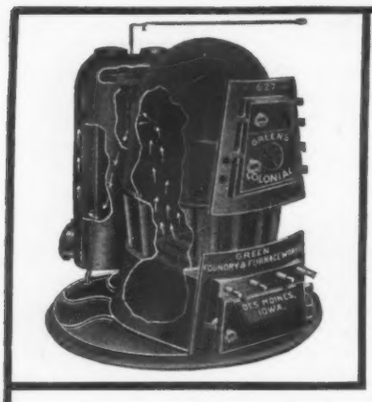
Prompt shipments at all times from either Utica or Chicago Stocks.

Utica Heater Company

Utica, N. Y.

Chicago Branch, 105 Lake St., Chicago, Ill.

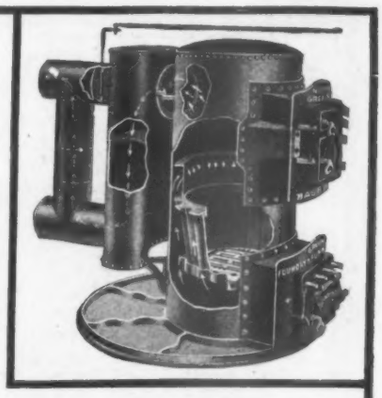




YOU WHOSE BRAIN SELLS THE FURNACES!
YOU WHOSE BRAIN BUILDS THE BUSINESS!
YOU WHOSE BRAIN MAKES THE PROFIT!

Go for a trip over the line of furnaces you are now selling by comparing same with the line of

GREEN FURNACES



Perhaps you will find some feature which will readily appeal to your customers; perhaps you will find that the Green Furnaces combine all of the features on the furnace you are now selling and a dozen more; perhaps you will find a furnace which will appeal to your customers so well that they will gladly pay you $25.00 to $30.00 more than for the furnace you are now selling—this means extra profit to you—even if you find but one furnace in the line which excels your present line and your competitor's you will be well repaid.

Yet if you send for a catalogue you will find a line of modern, up-to-date furnaces, some all cast, some all steel, some part cast and part steel; furnaces for soft coal, hard coal or wood, high priced or low priced furnaces, a furnace to fit the ideas of furnace construction in the mind of each of your customers, furnaces to meet the demands of your trade.

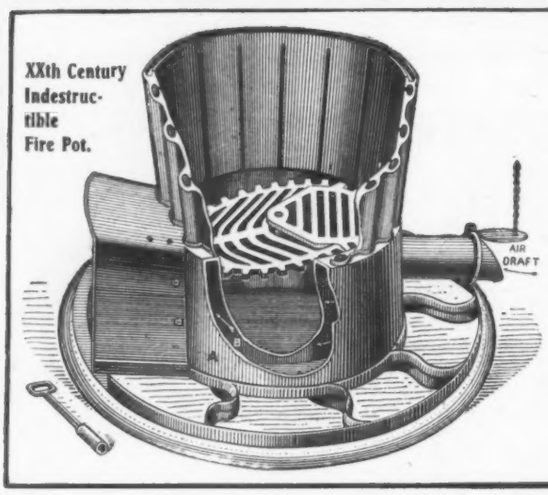
Are you going after the business in 1909. If so you are the man we are looking for—the progressive man, the man who is looking for something better, the man who is trying to give his customers the best, the man who is building his business. We are closing agencies every day. Do you have the agency for our line in your city?

Write us for Catalogue and Discounts.

GREEN FOUNDRY & FURNACE WORKS
Dept. A **DES MOINES, IOWA**

LINCOLN STOVE REPAIR CO., Lincoln, Neb.
State Managers for Nebraska.

ROWE CONSTRUCTION & HEATING CO., Watertown, S. D.
State Managers for South Dakota.



XXth Century Indestructible Fire Pot.

Pledge Yourself

To start the New Year right by handling and installing The Celebrated Line of XXth Century Furnaces and Boilers, and you will enjoy a prosperous and happy new year. Reasons on request. Write for them.

XXth Century Heating & Ventilating Co.
General Office and Factory, AKRON, OHIO

IT WILL PAY YOU to enter into Competition for the ☞

$100.00 IN GOLD

☞ for the Annual Prize WINDOW Competition of THE AMERICAN ARTISAN

IT'S PROFIT YOU'RE AFTER

Would you refuse to increase your profit without taking any chances? CERTAINLY NOT.

Then accept the exclusive agency proposition offered for

"MUELLER" FURNACES

A line of heaters well known wherever furnaces are sold.

A heater that stands in a class of its own—unequalled for Power, Durability, Economy.

It is out of the competition class.

Easier sales, and at a much greater profit than can be made on competition heaters.

Result—INCREASED SALES and INCREASED PROFITS —for you.

Get in line—write NOW for the Agency.

L. J. Mueller Furnace Company

Established 1857 **191 Reed Street, MILWAUKEE, WIS.**

FORBES FURNACE—Rear View, Showing Cold Air Intake.

The 1908 Additions to the

Forbes Furnace

make it the

Season's Winner

New Cast Iron Radiating Manifold
Ample Air Inlet and Deflector
Few Joints—Therefore Gas Tight
Burns Either Hard or Soft Coal
Fully Guaranteed in Every Case

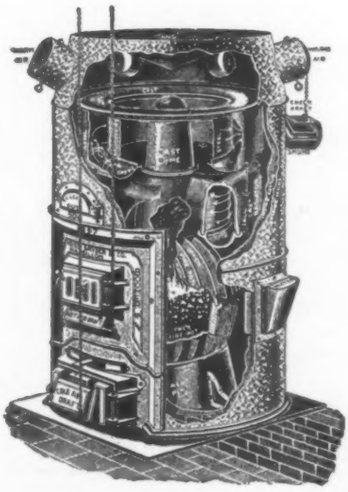
Have You Seen Our Agency Proposition?

It's interesting—write us about it.

Tubular Heating & Ventilating Co.

228 Quarry St., Philadelphia, Pa.

A Good Warm Air Furnace



Properly installed, will heat a house more satisfactorily and more economically than hot water, steam or stoves.

The foregoing statement can be proven if you will sell BOOMER FURNACES and get our ideas about installation.

No one has ever made any money out of light, cheap furnaces; 95% of the consumers will pay the price when value can be shown, after which, no trouble. Let your competitors have the other 5% and the trouble.

Be honest now, are you drifting into the 5% class, or are you going to handle BOOMERS? Get our attractive BOOMER proposition immediately.

The HESS-SNYDER COMPANY

Manufacturers :: MASSILLON, OHIO

Sell The GILT EDGE Line
For 1909

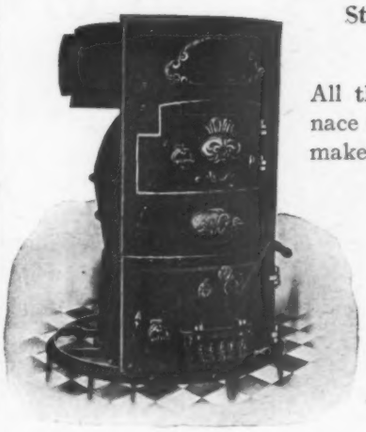
Build a good reputation on a furnace that you can rely on. One that will stand up under all conditions of use. There is one such; it is the **GILT EDGE LINE.** Catalogs now for 1909 agency.

R. J. SCHWAB & SONS CO.
MILWAUKEE, WIS.

SCHWAB SIDEWALL REGISTERS. TIN and GALV. IRON FITTINGS, Etc., Etc.

You Tell the Tale. THE AMERICAN ARTISAN Will Spread It.

Our New De Haven All Cast Furnace



Strictly Modern and Up-to-Date in Every Respect

All the latest features in modern furnace construction are embodied in the make-up of this furnace.

FEATURES: Extra Heavy; Gas Tight; Burns all grades of Hard Coal, Soft Coal and Wood; Simple and Economical to Operate; Top Return Flue Radiator; Large Radiating Surface; Roller Bar Grate.

Write to-day for Catalog and prices.

Youngstown Furnace & Supply Company
NILES, OHIO

Manufacturers of the Celebrated LION-APEX and BESSEMER Series of Furnaces.
Chicago Branch: 218 East Lake Street
ROOD & McINTYRE Kansas City, Mo., Southwestern Distributors

The Wise

lacks nothing to make it the very best furnace on the market.

But Your Business

lacks the agency for **The Wise** if you are not making more money, installing more furnaces and giving your customers better satisfaction than any of your competitors.

Write us for the Reasons.

THE WISE FURNACE CO., AKRON, OHIO

We Want You

to know about the

Money Making Possibilities

of the

Klylinax Heat Economizer

Improves Any Hot Water Heating Plant

This device is one of the most successful on the market.

It increases the circulation and **gives more heat with less fuel.**

Once Tried—Always Used

You can **increase your sales and profits** by using the Economizer.

Easily Applied. Operates Automatically

Let us send you descriptive Booklet.

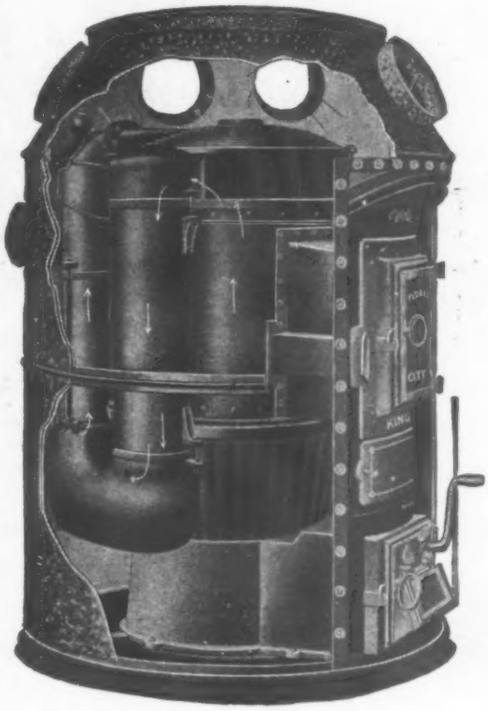
We Sell NYE Dies

Kellogg-Mackay-Cameron Co.

Boilers and Radiators

CHICAGO

MINNEAPOLIS SEATTLE



One of the many styles in which

Floral City Furnaces

are made

Write for catalogue and prices. We can interest you.

Monroe Foundry & Furnace Co.

Monroe, Mich.

1,000 Candle Power Light at Less Than One-Quarter The Cost of Electricity

One of these Lamps Lights a 80x40 ft. Room as Bright as Sunshine

One Gallon of Gasoline Operates One Lamp 12 to 15 Hours

Safe, Powerful, Economical, Simple and Durable

Illuminate Your Store, Church or Factory

with our new **"DUPLEX"** or **"TWIN INVERTED"**

Center Generating, Arc, Hollow Wire System Lamps,

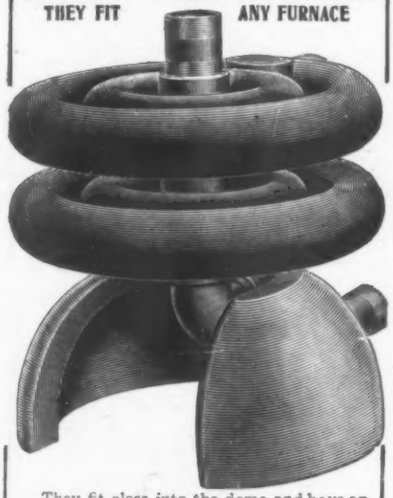
and draw trade after dark. This is the most powerful, simple and safest system of lighting ever placed on the market. These lamps pay for themselves in a short time. We are the Sole Manufacturers of these and the famous Brilliant Lamps. Write for Catalog A. A. H.

BRILLIANT GAS LAMP CO., 42 State St., Chicago

THE CHAMPION

Hot Water Combination Boilers

THEY FIT ANY FURNACE



They fit close into the dome and have an open front at fire door. In small heaters base section can be used alone. One or more rings may be added for additional capacity to be determined by the amount of hot water radiation to be used. All joints absolutely tight.

WRITE FOR CATALOGUE.

FRANK D. STOLZ, Manufacturer

156 Webster Ave., CHICAGO, ILL.

MONCRIEF TOP RETURN FLUE WARM AIR FURNACE

A strictly modern, up-to-the-times furnace that invariably gives satisfaction to every user. Here is a furnace that any dealer can stake his reputation on. Every feature of merit known to first-class furnace construction will be found in its make-up. Every part is perfect and every detail has been given careful attention.

It's THE furnace to offer your most particular customers. Write for our Catalog.

HENRY & SCHEIBLE COMPANY

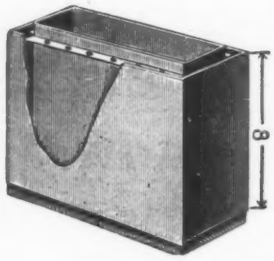
625-29 Long Ave., N. W., CLEVELAND, OHIO

J. C. KIMMEL, 3314 E. 15th St., Kansas City, Mo. Western Sales Agent.

"Ability is of little account without opportunity," said Napoleon I. Advertising supplies or creates the opportunity.

A Perfect Hot Air Furnace Pipe

EASILY AND QUICKLY ERECTED



The Stiffest and Best Machine-made Pipe on the Market, and **the only Sectional Furnace Pipe in which the inner walls form the cross-walls.**

There are no wings to pull out and no cleats to bend. The joints fit perfectly and there is positively no buckling

This Pipe is the result of twenty-five years' experience and effort toward perfecting a Sectional Wall Pipe and is a complete success.

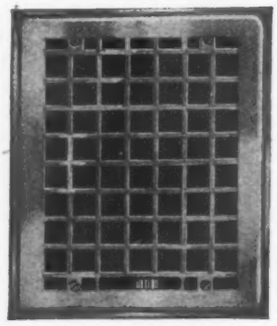
WRITE FOR OUR LATEST CATALOG

The Michigan Safety Furnace Pipe Company

Corner Brooklyn and Abbott Streets, DETROIT, MICHIGAN

WE ARE NOT CONNECTED WITH Any COMBINATION. DO NOT GET Our NAME CONFUSED WITH OTHER MANUFACTURERS

Announcement! Wrought Steel



Floor or Wall

We announce that our Self-locking Glide Movement **Wrought Steel** Registers and Faces, as well as our New Semi-Steel goods, are made by us in our own Factory and under our exclusive patents.

A complete stock of all sizes on hand. Send for descriptive matter.

Tuttle and Bailey Manufacturing Company

New York Chicago Boston

Walworth Deflecting Wall Registers

FOR BASEBOARDS

Can be used on a "Double Head."

This register takes the place of the convex, and costs less money.

It takes up no room in the wall pipe, has a face of large open area, is made in standard sizes, fits regular stock sizes of fittings, is equipped with a wall frame and is attached to the pipe in the same manner as the ordinary valve register.

Our registers are made in **THREE STYLES,** Vertical, Horizontal, and Baseboard. We are also makers of the famous **SEMI-STEEL** Floor and Convex Register, all sizes and finish.

Let us quote you prices.

The Walworth Run Foundry Co.

2485 WEST 27TH STREET, CLEVELAND, OHIO.

FOR SIDE WALL

A New One —

THE AMERICAN ARTISAN
Advertising Manual

The style and amount of advertising which retail hardware and stove dealers have been doing in the past few years shows a marked improvement over former years and the improvement is yet in its infancy.

Retail dealers are beginning to appreciate the benefits of advertising and are anxious to secure assistance in the preparation and arrangement of their advertising copy.

In response to many requests from the trade

THE AMERICAN ARTISAN
HAS PREPARED AN

Advertising Manual

which contains almost 300 pages and almost 500 advertisements of retail dealers which it has criticised, some favorably, some adversely.

These 500 advertisements of THE AMERICAN ARTISAN ADVERTISING MANUAL are not set up with the intention of tearing them down, are not dummy advertisements, but are actual announcements which have appeared in local papers and which have been paid for by leading retail dealers.

The work contains a comprehensive criticism showing how not to prepare ads as well as how to prepare them.

It tells of the mistakes which are most frequently made and how to avoid them.

It is brimful of information to those who prepare their own ads.

Every enterprising dealer should secure a copy of THE AMERICAN ARTISAN ADVERTISING MANUAL. The book is elegantly gotten up in a durable manner and is cloth bound.

The price is $3.50 per copy and can be obtained from any book seller or from

DANIEL STERN, Publisher, 355 Dearborn St., Chicago, Ill.

The RELIABLE GASOLINE STOVE

IS THE QUICKEST SELLING SUMMER STOVE THAT THE MARKET AFFORDS

BECAUSE

Its handsome appearance immediate ly attracts the attention of the prospective buyer and arouses his interest.

The many meritorious features embodied in its construction and its simplicity of operation (most quickly and easily demonstrated by the dealer) never fail to create the desire to possess, and finally, knowledge as to reasonableness of the price asked for it, speedily effects the sale.

THERE ARE JUST FIFTY SIZES AND STYLES OF RELIABLE VAPOR STOVES AND RANGES MADE, EACH AND EVERY ONE FULLY GUARANTEED BY

Schneider & Trenkamp Company

Division of American Stove Company

CLEVELAND

BRANCHES AT New York, Chicago, San Francisco

ASK FOR CATALOG No. 36A

ESTABLISHED 1880.

THE AMERICAN ARTISAN & HARDWARE RECORD

Representative of the Stove, Tin, Hardware, Heating and Ventilating Interests.

PUBLISHED EVERY SATURDAY.

TERMS OF SUBSCRIPTION IN THE UNITED STATES AND ITS POSSESSIONS, (Invariably in advance): ONE YEAR, POSTAGE PAID, $2.00.
IN FOREIGN COUNTRIES INCLUDING CANADA, ONE YEAR, POSTAGE PAID, $4.00.
Address all Letters, Communications, and Remittances to

DANIEL STERN, PUBLISHER AND PROPRIETOR,
355 DEARBORN STREET, CHICAGO, ILL.

Entered as Second-Class Matter June 25, 1885, at the Post Office at Chicago, Illinois, under Act of March 3rd, 1879.

CHICAGO, JANUARY 16, 1909.

"THE TIME is coming in this country when trees will be as scarce as diamonds unless immediate steps are taken to preserve our forests." This was the dark picture painted in an address by Secretary of Agriculture Wilson at the twenty-eighth annual meeting of the American Forestry Association held at Washington, D. C., on January 13. The secretary declared that our forests' growth is getting scarcer and scarcer every day and that we are using three times as much wood as we are growing. "Do not let us sit down and make faces at Congress," continued the secretary, "because that body has not yet seen fit to provide for the Appalachian and White Mountain forest reserves. We must not depend too much upon Congress. What we want is a reforestation of the country at the rate of about 125,000 acres each year."

A Base Injustice.

IT IS the same old story. Whenever a fire occurs and loss of life results, and when the direct cause cannot be ascertained, blame it on the warm-air furnace, whether there ever was one in the building or not. It would appear that there is a campaign on foot against the warm-air furnace and this system of heating, if one is to be guided by the misleading reports that are continually being circulated attributing various disastrous conflagrations to "defective" furnace heating or a "hot" furnace pipe, when there is absolutely no ground on which to base any such deductions.

Readers of THE AMERICAN ARTISAN will recall the terrible holocaust that occurred at Collinwood, Ohio, on March 4 last, when a school house was burnt and the lives of 164 pupils and two teachers were blotted out. Various causes were at first assigned as to the origin of the fire, but it was finally decided to put the blame once more on the much maligned warm-air furnace, and it again became the victim of the sordid conjectures of the individuals who proved in this case to be as "proficient" in the art of guessing as many others had been before them. THE AMERICAN ARTISAN on hearing of the false, if not malicious, report that the Collinwood fire had been caused by a defective warm-air furnace, took occasion in its issue of April 4 to emphatically deny the story, stating that the ill-fated schoolhouse was not heated by a warm-air furnace. The "defective warm-air furnace" story, nevertheless, seemed to be the most plausible one, as usual, and it circulated and evidently is still circulating far and wide, much as it is to be regretted.

In the January issue of *Everybody's Magazine* the story is revived by Samuel Hopkins Adams in an article entitled "Burnt Money." Mr. Adams in dilating upon the enormity of fire losses in America refers to the Collinwood disaster and on the last page of his article, after "roasting" the architect of the schoolhouse for permitting the use of exits opening inward, says: "Much less was heard about the primary cause of the disaster, a furnace pipe passing beneath a wooden staircase without so much as a thin plaster coating for protection." If Mr. Adams had done a little careful investigating while collating data for his article, and had taken the trouble to examine the records in the office of the state fire marshal at Columbus, Ohio, he would not have made the serious blunder that he has, for he would have ascertained that the Collinwood school was, at the time of the conflagration, heated by a low pressure steam boiler. Perhaps Mr. Adams does not realize the injustice that he has done to the warm-air furnace industry throughout the country in giving publication to such an absolutely incorrect statement as that quoted above, but the fact remains, nevertheless, that a gross injustice has been done the furnace interests, who at least are entitled to a retraction of the story by Mr. Adams and by *Everybody's Magazine*. Such misleading statements as this strewn broadcast throughout the land, might have a tendency to affect the sale of warm-air furnaces in public school and other buildings, and bring discredit upon what is unquestionably one of the best, most healthful and most satisfactory systems of heating that exist. THE AMERICAN ARTISAN before contradicting the report that the Collinwood fire was caused by a defective warm-air furnace, made a very complete investigation of the matter, and stated unequivocally, as it does now, that the Collinwood school at the time of the disaster was *not* heated by a warm-air furnace. It is to be hoped that this is the last that we shall hear of this false rumor in connection with the horrible conflagration at Collinwood.

Hints to Exporters.

CONSUL Albert Halstead, of Birmingham, England, reports that the British consul at Stockholm, Sweden, has furnished some advice to British exporters, which he reviews.

Two self-evident points raised by the British consul that are generally overlooked by exporters are peculiarly applicable to many American firms, one of which follows:

> Don't expect trade to result from sending the consulate a catalogue with English prices, etc. Swedish purchasers do not come to the consulate to study them: they give orders to persons who call on them, speak their language, and quote prices for delivery in Stockholm in terms of measurement and currency with which they are familiar.

It is positively of no advantage to send catalogues

with prices in American money and to quote the goods f. o. b. at a railway terminal in New York. American consuls have emphasized this fact for more than a decade again and again and with practically little result. In the United Kingdom the purchaser seldom gives an order after consulting a catalogue. He is even less apt to give it when he has to translate American money into English money. It is prejudicial to a sale for a price to be quoted delivered at New York, for the purchaser is then put to the trouble of calling up a shipping agent and finding what it will cost to deliver the goods in his town.

When prices are quoted delivered in England and in English money, the possible English purchaser may be interested, but he will not even then be interested one-tenth as much as he would be if he received a personal call and had prices for the goods quoted delivered in England, with the usual British discount for cash. This point is the mort important when it is remembered that wherever he can the British purchaser buys British-made goods, and instead of being prejudiced in favor of an article because it is of foreign manufacture he is actually prejudiced against it. The name "American" really carries no additional weight in England, but if anything it is a handicap.

The British consul also says:

> Don't expect to find first-class, reliable, energetic, honest agents, thoroughly versed in your trade and with good business connections waiting in Stockholm on the chance of your wishing to employ them, and willing to travel the country at their own expense, provided that you pay them a commission on orders secured. Such agents are not waiting unemployed in Stockholm. You must spend money to make money.

The foregoing is absolutely true as to England. A number of agents, both American and English, anxious to sell American goods, have written, at Consul Halstead's suggestion, to American manufacturers in regard to agencies for American goods. Almost invariably they found that the American manufacturer expected the agent not only to pay for the goods f. o. b. New York, but to pay his own expenses in introducing them, and to be satisfied with comparatively a small percentage. The agent properly expects the American manufacturer to take some of the chance of introducing those goods and pay some of the expenses. He is not willing, if he is a good agent and a capable salesman, to buy the goods on pure speculation. Many an opportunity to introduce American goods in England has to Consul Halstead's knowledge been lost because, when the agent has written for information, he has been discouraged by the inability or unwillingness of the American manufacturer to do his part toward introducing his wares there. This is not only discouraging to the American agent, but equally so to the consul, who is endeavoring to promote his country's trade.

The British consul also mentions that British postage stamps on an addressed envelope are of no use for replies posted in Sweden. The same is equally true of American postage stamps inclosed in a letter for a reply. The American manufacturer who wishes to correspond in England or anywhere abroad, and to be assured of an answer, can do so by purchasing an international reply postage stamp. This point should not be overlooked.

These points are a reiteration of what has been often said in reply to letters of inquiry received from manufacturers. There seems, however, to be evidence that American manufacturers are not profiting much by the experience of American consular officers and their advice based thereon. Many of them seem to think they can enter a foreign market in a hap-hazard fashion, are ambitious for foreign trade in times when the home-market demand is not active, and overlook foreign trade when the home demand consumes all their energies. It would therefore seem that reiteration is desirable, and that it cannot be stated too often that unscientific methods of entering a foreign market are decidedly harmful to the manufacturer who employs them, and also to the general interests of American foreign trade.

Plan to Empty the Jails.

THE RECORDS of American prisons show that the overwhelming majority of our criminals are young men. They show, moreover, that about 75 per cent of felons are untrained in any honest and useful trade. In our reformatories more than 90 per cent have never learned a trade. In a recent discussion before the National Society for the Promotion of Industrial Education, Mr. Thomas Speed Mosby, Pardon Attorney to the Governor of Missouri, said:

"The latest bulletin from Washington indicates that juvenile crime is on the increase. We are now expending more money for public prisons, prosecutions and police, than we are for public education. Widespread youthful criminalism is, in and of itself, a confession of educational failure. A personal study of some 3,000 criminals has convinced me that the radical defect in the vast majority of the criminal population is their utter lack of industrial training. By far the greater number of crimes committed are crimes against property. Most criminals are thieves; men, for the most part, who try to get a living dishonestly because they have not learned to get it honestly. They steal, who have not learned to work.

"We are able to estimate the direct cost of crime; but who can estimate the terrible cost of that widespread industrial inefficiency which could be so easily remedied by youthful training in manual, agricultural and trade processes? I would not decry the belles-lettres. I believe in the humanities. I revere the classics and would by no means exclude them from the curricula of our schools and colleges. But may we not blend the practical with the ideal?

"An hour's hand work a day in every school room in the land, running through all the grades from the kindergarten to and including the high school, would give to every man, woman and child of the rising generation at least the rudiments of an honest, useful and profitable occupation; would give to all who wanted it a trade, and would make of the next generation of Americans the most productive and the most industrially efficient race the world has ever seen. Is it worth the experiment? I think it is. No rich man's son would be poorer, while every poor man's son would be incalculably richer, with the knowledge that this hour would give. The cost of school equipment would, of course, be great; but it would be small in

comparison with the benefits to be derived. And I believe that every criminologist will agree with me when I say that for every dollar so expended, two dollars will be saved in the lessened cost of crime."

There is no doubt whatever but that the plan suggested by Mr. Mosby would go a long way toward the minimizing of crime. But apart from this laudable object is the thought that it should be the duty of every country to make each of its citizens an effective economic unit. The trade school is the means to accomplish this—definite, practical trade schools to train youths into definite, skilled workers. The Society for the Promotion of Industrial Education is doing much to accomplish this, and it should have the support of every employer of labor in the country as well as the greatest measure of encouragement from the government.

RANDOM NOTES AND SKETCHES.

BY SIDNEY ARNOLD.

Representing themselves as the agents of the McCoy Crockery Co., telling housewives at Spartanburg, South Carolina, they were giving away forty sets of crockery for advertising purposes, provided the housewives would pay the freight on the wares, and on January 5 receiving a full car load of goods, which they endeavored to make the housewives receive and pay for at the rate of 90 cents per head, six men, giving their residence as Cincinnati, wound up under arrest at the police station. They were A. W. Murland, O. A. Osmondson, D. L. Butler, H. M. Farltone, W. H. Campbell and L. W. Watson. The crockery was worth less than 50 cents a set and the men demanded a dollar. The charge against them was nominally "doing business without a license," though it looks to me like a case of pure unadulterated graft, at least that is what it would be termed in Chicago. What between "gas-saving" appliances and other schemes the housewife is being pestered almost to death. Why don't they let her alone and allow her to perform her daily duties undisturbed?

* * *

It has been discovered in Verona, N. J., that an automobile can be used effectively as a butter churn and that the butter can be churned while the machine is speeding along the road in the performance of other duty. The discoverer is Warren Schelling, a chauffeur for Charles Spohr, a dairyman on the Jacksonville turnpike. It is thought that within six months every dairy farm in that section of New Jersey will be churning butter by the auto process, and that Schelling will be hailed throughout the countryside as a great benefactor of womankind. Like many other discoveries, this one was made by accident. Truly, in this instance, necessity was the mother of invention. Schelling, who was driving the Spohr auto-milk wagon, ran out of water on the way from the farm to Caldwell to ship milk and cream to market. The machine stopped. When Schelling investigated, the water cooler he discovered it was empty. Besides, he was far from any water supply.

"I've read some place," he said to himself, "that normally milk consists of 96 per cent water, 5 per cent substances which produce muscle and 9 per cent fat. That is not as good as cucumbers, which are 97 per cent water, or even as good as turnips, which are 94.4 per cent water. However, as cucumbers are out of season, and the farmers have buried their turnips, I guess I'll have to fall back on milk, so here goes."

He lifted a can, poured in the yellowish-white fluid, closed the water cooler, put on power and soon was on his way to Caldwell again. That town almost was in sight when the machine balked again. Schelling opened the water cooler and discovered he had filled the water cooler with pure cream, which is 100 per cent fat. Abandoning his butter-clogged machine, he walked to Caldwell for help. Horses dragged the four-wheeled churn to a garage. All the way there Schelling was trying to think out an auto attachment for printing and wrapping butter after the churning process is finished. I haven't heard whether he has succeeded in this or not, though I would not be surprised to find that he has, as long as he sticks to the auto. The automobile is certainly accomplishing wonderful things these days. The airship as yet isn't one, two, three with it.

* * *

"The Automatic Hired Man" is the name of an interesting mechanical apparatus devised by Julius Lifter of Philadelphia to take the place of the ordinary farm helper. It is said that the machine can be installed for $900, and will do the work of two men. There are many good points to the automatic hired man. It will not smoke in the barn or chew tobacco behind the kitchen stove. It will not tell wicked stories to the farmers' sons or tell of the strange things to be seen in the city. It will not take out the best horse or auto to give its friend a ride. During the summer the automatic hired man will work in the sun as well as in the shade, and in the winter it does not lay off. It can be made to build the fire in the morning, which is something that no human man thinks of doing. If the machines work as well as the designer says they will, a company may be formed to build them on a big scale and distribute them all over the country. And then again, the automatic hired man will of course refuse to go on strike. What a blessing such a device would be if it could be utilized! The story, I am afraid, is almost too good to be true.

* * *

THE RESURRECTION.

"See here!" demanded the indignant subscriber, "this obituary notice is all wrong. I'm not dead!"

"If the *Herald* says you're dead," sternly replied the editor, "you're dead. But," he added magnanimously, "if you don't like being dead, we'll print your birth notice."

* * *

I wonder to how many of us the following lines are applicable? One thing is certain, we will never succeed if we get cold feet.

This world is full of people
  Who say they stand no chance,
And yet you'll never see them make
  An effort to advance.

This world is full of people
  Who want to score a hit,
But when their little plans go wrong
  They get cold feet and quit.

News Siftings

Chas. H. Miller of the Champion Steel Range Co., Cleveland, O., is now in California on an extended visit.

Eugene Munsell & Co., New York and Chicago, are prepared to quote stove manufacturers and hardware jobbers on mica for the coming year.

The Ohio State Stove Co., of Columbus, O., has been incorporated with a capital stock of $75,000 by F. U. Long, president; E. B. Thomas, treasurer, and others. The company has bought the building on West First avenue, formerly occupied by the Columbus Lithographing Co., which they will use for the manufacture of gas stoves.

The Standard Stove Repair Co., 19 North Second street, Philadelphia, has, by reason of increasing business, been obliged to secure the adjoining building at 17 North Second street. With the latter building in connection with their present one they will be in a better position to furnish the trade with stove, heater and range repairs, and stove dealers' supplies.

TRAVELING SALESMEN OF THE BRIDGE & BEACH MFG. CO.

The Bridge & Beach Mfg. Co., 503 South First street, St. Louis, Mo., advise that the following traveling salesmen will represent them during 1909:

Edward J. Fox, Northern Missouri; Walter F. Hoener, Southern Missouri; O. F. Little, Northern Illinois; John W. Hackney, Southern Illinois and Indiana; A. Weiskirch, Northern Kansas; Chas. F. Corley, Southern Kansas; A. W. Spinney, Iowa; G. A. Axelson, Southern Nebraska; H. W. Hinkley, Northern Nebraska and South Dakota; Jas. R. Henry, Eastern Texas and Louisiana; L. H. Booch, Western Texas; Jos. V. Little, Oklahoma; John J. Johnson, Arkansas; Lake P. Jones, south of Ohio and east of Mississippi rivers; John H. Lister, Suburban; Robert Metcalf, St. Louis; Geo. W. Tuthill, St. Louis; John Le Page, Special Representative.

S. B. Buck will be located at Denver, Colo., carrying a stock there for the Colorado trade, and will also represent the Bridge & Beach Mfg. Co. in Arizona, New Mexico, Utah and Wyoming. The company's San Francisco branch house will be in charge of John C. Schieck, with a full corps of salesmen representing the company in California, Nevada and the Hawaiian Islands. The company's Portland (Ore.) branch will be in charge of F. W. Isherwood, with a full corps of salesmen, taking care of Oregon, British Columbia, Washington, Idaho and Montana.

THE FORAMINOUS FIRE PLATE COVER.

P. J. Mooney, Brazil, Ind., is sending out a folder describing and illustrating the well-known Foraminous Fire Plate Cover which is credited with making a heating stove heat four or five rooms which formerly only heated one. The foraminous fire plate cover is based on the principle that burning fuel has an affinity for oxygen, and will properly attract the quantity necessary for correct combustion if arranged to do so. The device is designed to be placed on the fuel bed. It has no other support and settles as the fuel settles, distributing the oxygen uniformly throughout the fuel, controlling, improving and promoting combustion, and allowing a continuous inflow of fresh air at the bottom of the fuel bed, causing steady and increased radiation. It also protects the combustible gases from noxious vapors at the top of the fire by preventing the formation of space for the accommodation of such vapors where combustion should be completed. When used in a heating stove burning clean mine run soft coal, it permits the temperature of the fuel bed below the plate to go to a point where the combustible material is turned into gas, which burns in a blue or crimson flame above the plate in the stove. It is claimed for the foraminous fire plate cover that it increases the thermal efficiency of soft coal by consuming a large per cent of the volatile combustible matter of which soft coal is so largely composed, and also by burning the greater part of the carbonaceous gases which usually escape by the ordinary method of burning fuel. When writing P. J. Mooney for further information and prices kindly mention THE AMERICAN ARTISAN.

STOVE MANUFACTURE IN PHILADELPHIA.

The stove manufacturing industry in Philadelphia is the subject of a lengthy article recently published in the *Philadelphia Public Ledger*. As going to show the extent of the stove industry in the Quaker City the following excerpts from the article referred to are here reprinted:

"The industry of stove manufacturing in Philadelphia, including in its several branches all varieties of house-warming and cooking apparatus, is one of considerable magnitude. The manufacturing establishments located within the city limits employ, when running their full capacity, some 2,500 operatives, and in addition to these establishments there are others located within 50 miles of this city which are represented here by selling agents and which also turn out a large and varied product.

"The business in Philadelphia had its beginnings almost 70 years ago, and the growth of the industry, like that of the city which has been its home, has been steady and progressive. There are no establishments in the United States more completely appointed and more fully supplied with every known facility for the manufacture of their special product than the larger manufactories in this branch of industry in Philadelphia.

"There is probably no other city that has so largely appreciated and used the better grades of heating and cooking apparatus as this City of Homes. For fully 40 years past it has been regarded as essential that every house erected in Philadelphia, even though it might not have more than four or five rooms, should be supplied with a proper system of heating and a cooking range, of good quality, the builder regarding these as indispensable if a prompt sale of such a house is to be effected.

"As may be inferred such of the product of this industry as finds a market within the city of Philadelphia itself consists largely of furnaces, ranges and hot-water and steam-heating appliances, and these goods form the larger part of the output. In addition to these, however, the stove foundries of Philadelphia have found a wide market outside of the city for what are termed portable goods namely, heating stoves in great variety, laundry stoves and cooking ranges and stoves of the portable class. Their market for these goods extends along the Atlantic coast, from Maine to Florida, while a considerable portion of their product goes West. In the city of New York a large portion of goods of these kinds that are sold are manufactured in Philadelphia, and Philadelphia-made stoves are sold as freely in Chicago as in this city, while from Chicago westward to San Francisco the products of Philadelphia stove foundries will be found competing with the best Western makes. In the Southern

States, since the close of the Civil War, the sale of stoves and ranges made in this city has steadily grown in volume, and they are now regarded with the highest favor in all parts of the Southeast of the Mississippi River.

"Notwithstanding the tendency on the part of residents of New York to regard Philadelphia as of minor consequence, there are more goods of this character now sold in the city of New York by Philadelphia foundries than are sold in New York by the famous stove foundries of Albany and Troy, although the latter for many years almost monopolized that market. A gratifying growth of trade in the New England States is also reported by Philadelphia foundries as having occurred within the last few years, the goods made here appearing to be as well suited to the somewhat fastidious tastes of New England people as those made in the State of Massachusetts itself.

"The conditions for the continuous and steady progress of this branch of manufacture in Philadelphia were never more favorable than at the present time. The long continuance of the industry here has developed a class of mechanics who are excelled by none in their particular specialty. Cheap water freights from Southern iron furnaces and close proximity to Pennsylvania iron furnaces, whose product is unsurpassed for strength and durability, added to reasonable rates of freight for the finished product to all points of the New England, Middle and Southern States, combine to afford superior advantages to Philadelphia foundries.

"The orders now being received by Philadelphia stove manufacturers show a gratifying increase, indicating a steady recovery from the recent business depression. There is a general feeling among them that better times are near at hand. Increasing activity among all these foundries is resulting in the employment of additional men and a rapid increase of their product. The opening of the fall trade finds them supplied with ample and varied stocks of the most modern design, produced under conditions which will enable them to compete in price with any goods made in this country."

POST CARDS TO SHOW EVOLUTION OF IRON INDUSTRY.

The S. Obermayer Co., Cincinnati, Chicago and Pittsburg, are about to commence the distribution of a series of twelve post cards, printed in a number of colors, portraying the important part that iron and steel have played in the history of the world, the accompanying illustration showing, in reduced form, the first post card of the series. This illustration shows Tubal Cain of Biblical fame making a crude spear. Cain is supposed to have been the first iron-worker and to have lived about 3500 years before the Christian era. The second of the series depicts Pharaoh's chariots and tells of the part iron played at that time. In the third, Hiram of Tyre is shown casting the columns for King Solomon's temple. These columns were 27 feet long, 4 feet 6 inches in diameter and weighed about 175 tons. The next shows the first iron plow in use, and illustrates man's conquest of the earth when he first used the plow for tilling the soil. Coming further down the Romans are seen supreme in the world because of their knowledge of working in iron and bronze. Here the artist gives a vivid picture.

"The Battle of the First Ironclads" is the title of the next picture, and here, too, the artist has used his skill in portraying war in all its hellishness. But the scene changes, and an excellent portrayal of the modern steam engine is shown with all its possibilities. The progress of digging the Panama Canal is also shown. Greatly in contrast with the sixth picture of the series is that one depicting "The End of War," in which we find that modern engines of destruction like the "Dreadnought" are slowly making war suicidal, therefore, impossible. The twelfth and last of this set of pictures shows the new Equitable building in New York City, which will be the highest in the world—62

The First of a Series of Post Cards to be Distributed by the S. Obermayer Co.

stories, or 909 feet high. When writing the S. Obermayer Co. kindly mention THE AMERICAN ARTISAN.

A VERY SERVICEABLE CALENDAR.

The Ringen Stove Co., St. Louis, Mo., manufacturers of the celebrated "Quick Meal" line of stoves and ranges, are sending out a very attractive and serviceable calendar which may be used for memorandums and which can be hung on the wall or set on the desk. The calendar is intended to serve as a reminder of one's daily duties, and to avoid annoyance which is sure to arise when forgetting business appointments. The Ringen Stove Co. incidentally take occasion to refer to the fact that they captured the grand prize at the World's Fair. When writing the Ringen Stove Co. kindly mention THE AMERICAN ARTISAN.

THE NEW "PRINCESS" RANGE.

The Allen Mfg. Co., Nashville, Tenn., are sending out a folder in which they state that their "Princess" range is the only range on the market with a reservoir on the right-hand side that heats the water hot, and bakes in the oven all at the same time. This range is constructed so that all the heat is retained inside the range and radiated into the oven, while the water is heated entirely with waste heat that would otherwise pass off up the chimney unused. The escaped heat, after it has done its work inside the range, heats the water in passing out of the flue-box. The reservoir holds 11 gallons and is made of 14-ounce planished copper, tinned inside. It is easily cleaned, all that is necessary being to remove the plug from the drain tube in the bottom. When writing the Allen Mfg. Co. kindly mention THE AMERICAN ARTISAN.

Every merchant must choose for himself whether he will take the simple profit that comes from buying a quantity to get a small saving in price, or the compound profit from turning his stock often.

The Hardware Record.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly. You will find these on pages 36 to 41 inclusive.

RETAIL HARDWARE CONVENTIONS.

Following is a list of the coming annual retail hardware conventions with the place of meeting and the dates when the conventions will be held:

Inland Empire, Spokane, Wash., Jan. 20-21.
North Dakota, Bismarck, Jan. 26-28.
Missouri, St. Louis, Feb. 3-5.
Wisconsin, Milwaukee, Feb. 3-5.
Iowa, Des Moines, Feb. 9-12.
Pennsylvania, Philadelphia, Feb. 10-12.
Nebraska, Omaha, Feb. 16-19.
New York, Rochester, Feb. 16-19.
West Virginia, Charleston, Feb. 16-18.
Illinois, Springfield, Feb. 17-19.
Kentucky, Louisville, Feb. 23-25.
Minnesota, Minneapolis, Feb. 23-25.
Ohio, Columbus, Feb. 23-25.
Indiana, Indianapolis, March 2-5.
South Dakota, Huron, March 2-5.
New England, Springfield, Mass., March 10-11.
California, Oakland, March 10-12.

The twenty-third annual banquet of the Hardware Merchants' and Manufacturers' Association of Philadelphia will be held at the Bellevue-Stratford in that city on the evening of January 20.

George A. Johnson, vice-president of the Sligo Iron Store Co., of St. Louis, Mo., died on January 2, after a short illness. Mr. Johnson had been connected with the Sligo company for about thirty years.

The Zanesville File Co., a newly organized concern at South Zanesville, Ohio, has secured a building in which they will manufacture mill files of from six to twelve inches. The officers of the company are: President, David D. Lewis; secretary, H. C. Williams; treasurer, F. F. Kohler.

The executive committee of the Retail Hardware Association of South Carolina will meet at Charleston, S. C., in March to make final arrangements for the annual convention of the association to be held in that city in June. Paul W. McLure, Greenwood, S. C., is secretary of the association.

The Clyde Cutlery Co., Clyde, O., are sending out their catalogue No. 15, in which they offer the trade the same high standard of quality and in addition a better ground and finer finished line of knives and a greater variety of patterns than they have ever before offered. The catalogue contains 86 pages and in it are described and illustrated the company's complete line of knives and pruning shears.

The Tank Hardware Co., Quincy, Ill., jobbers and retailers of hardware, have outgrown their present quarters, and will build a warehouse, 90x190 feet, to cost in the neighborhood of $125,000. It will be a brick building of five stories, with reinforced concrete columns and floors. The brick will be laid in cement and the windows will be of fire-proof metal. Electric elevators will be installed in the building, and other up-to-date features added. The shipping facilities will also be improved by a side-track of sufficient length to accommodate four cars at one time. The present warehouse and store will be maintained for the accommodation of the local trade.

Albert J. Hornung of the hardware and roofing firm of Fitch & Hornung, Elyria, O., sustained injuries on January 5 that shortly after resulted in his death. Mr. Hornung was engaged in the work of putting a slate roof on an addition to a church in Elyria, when he missed his footing and fell to the ground below, crushing his head. He was 41 years old and had been a member of the firm of Fitch & Hornung for twelve years. He is survived by a wife and four children.

Joseph Wharton, one of the largest individual iron manufacturers in the United States, is dead at his home in Philadelphia, Pa., aged 83 years. He leaves a large estate. Mr. Wharton was president of the American Iron and Steel Association, and was a writer on financial, industrial, and scientific subjects. One of his great benefactions was the founding of the University of Pennsylvania, which he endowed with $500,000. Mr. Wharton was one of the founders of the Bethlehem Steel Company.

Secretary Fred P. Schlitt and the executive committee of the Springfield (Ill.) Hardware Merchants' Association, are sending out literature showing a general view of the interior of the State Armory at Springfield, Ill., in which will be held the exposition in connection with the annual meeting of the Illinois Retail Hardware Association to be held on February 17, 18 and 19. The convention will be held in the former Supreme Court rooms of the Illinois State Capitol, half a block from the exposition building.

Arthur J. Scott, Marine City, Mich., secretary of the Michigan Retail Hardware Association, is sending out to every hardware man in the state of Michigan, who is not a member of the association, an attractively gotten-up booklet concerning the Michigan Retail Hardware Association—"how it has made good and why it will continue to be a big factor in the hardware trade of Michigan." The executive committee of the association met during the past week to discuss preliminary plans for the annual convention to be held at Saginaw next August.

Secretary C. N. Barnes of the North Dakota Retail Hardware Association, is sending out the program of the association's thirteenth annual convention, which will be held at Bismarck on January 26-28. The forthcoming convention is expected to be a particularly interesting one, as it will be the first meeting of the association that has ever been held in Bismarck, and coming as it does at the time when the state legislature will be in session, more than usual interest will be taken in it. The citizens of Bismarck are doing everything possible to arrange for a pleasant time for the visiting hardware men and there will be plenty of entertainment during the convention.

The Lefever Arms Co., Syracuse, N. Y., announce that Lefever guns have recently made some records. On January 2, at Rylands, Ky., at a shooting and fishing club tournament in which 30 live birds were the marks, C. O. LeCompte with his Lefever gun scored highest with 28, Robt. West, Jr., securing high amateur with 27. On January 3 at the tournament of the

Northern Kentucky Gun Club, C. O. LeCompte won the high average, finishing with a score of 122 out of 125. The Lefever gun also won third high average at the live bird events in the tournament of the Northern Kentucky Gun Club held on January 1. The Lefever Arms Co. state that the records made by Lefever guns are due to the even pattern, maximum penetration and perfect balance of this line of firearms.

Secretary C. A. Peck, Berlin, Wis., is sending out a program of the thirteenth annual convention of the Wisconsin Retail Hardware Association, to be held in Milwaukee on February 3, 4 and 5. The program is gotten up in attractive form. Secretary Peck gives the following three reasons why the Wisconsin association is one of the best hardware associations in the United States: First, because the whole membership seem interested and are loyal; second, because since the organization was formed it has never had an empty locker and never needed money, lack of finances being a big drawback to many an enterprise; third, because the members of the Wisconsin association live in one of the most productive states in the Union, and are generally prosperous. The convention will be held in the Public Service building, Milwaukee.

Vice Consul-General Gregory Phelan, in response to an Indiana inquiry, says that the use of refrigerators is increasing yearly in the Brussels district of Belgium. He continues: "Refrigerators used here are of domestic and foreign manufacture, made of various kinds of woods, in all sizes and forms, without any special or peculiar features, but more or less imitations of American refrigerators. Prices for domestic production vary from 45 francs ($8.68) to 600 francs ($115.80) each, according to size, quality of wood, etc. The price of the German article is from 45 francs ($8.68) to 250 francs ($48.25). The English refrigerators which were on the market a few years ago are gradually disappearing." A list of the dealers in refrigerators in Brussels may be obtained from the Bureau of Manufactures, Washington, D. C.

A. R. Sale, Mason City, Iowa, secretary of the Iowa Retail Hardware Association, is sending out the program of the eleventh annual convention of the association to be held at Des Moines, Iowa, on February 9, 10, 11 and 12. The program is an elaborate one, calling for a number of addresses from well-known convention speakers. A feature of the convention will be the "Traveling Men's Hour" on the afternoon of Friday, February 12, at which all traveling salesmen are invited to be present and participate in the session. This number on the program will be in charge of W. B. Barney, Hampton, A. J. Collins, Des Moines, and Sam T. White, Davenport. The program states that "The Association exists not only for those who attend the conventions, but is a living active force ever at work, for the entire body of craftsmen whose interests are dependent on the power of the association."

Never drop your advertising in the quiet seasons. This is the very time when you should strive to make business. Not only will you mend the quiet times, but the rush will be better when the season comes around.

CONVENTIONS OF HARDWARE MANUFACTURERS AND JOBBERS.

Dates have been fixed for the holding of the conventions of the American Hardware Manufacturers' Association and the Southern Hardware Jobbers' Association. The sixteenth convention of the former association will be held concurrent with the nineteenth annual convention of the latter association, at Pittsburg, Pa., on June 9, 10 and 11, with headquarters for both associations at the Schenley Hotel, which will make the following special rates to delegates and visitors: European plan, single room, without bath, one person, $2.00 per day; two persons, $3.00 per day; single room, with bath, one person, $3.00 per day; two persons, $4.00 per day. Applications for hotel reservations should be addressed to James Riley, Proprietor Schenley Hotel, Pittsburg, and should state the names of the persons who will occupy each room for which reservation is requested.

ANNUAL BALL OF THE CHICAGO RETAIL HARDWARE ASSOCIATION.

Preparations are going on apace for the annual ball of the Chicago Retail Hardware Association, which will be held on Wednesday evening, January 27, on the seventeenth floor of the Masonic Temple, Chicago. The following committees have been announced by S. J. Koehler, secretary of the ball committee:

Executive committee—W. H. Bennett, G. R. Lott, S. J. Koehler, E. L. Sommers, A. J. Engelhardt; floor committee—G. R. Lott, W. H. Bennett, S. J. Koehler, E. L. Sommers, A. J. Engelhardt, H E. Gnadt, H. C. Peppler, W. J. Krueger, Chas. Menzel, Jr., F. Ruhling, J. Schuberth; reception committee—George Engelhardt, J. H. Bixler, E. H. Beiersdorf, J. F. Borchardt, J. Hora, T. Connors, W. B. Costello, W. M. Powers, Hans Fehr, Leo Krueger, D. McLaughlin, J. Martinec, Jos. O'Neil, Wm. Noebling, J. L. Smith, Wm. Wallace.

From present indications the ball this year will surpass any of the previous ones ever given by the Chicago hardware men. Frappe and cigars will be served, and there will be a smoking room in connection. The hall will hold 450 people. The dance program will contain 18 numbers, as follows: Grand march, (1) quadrille, (2) waltz, (3) two-step, (4) quadrille, (5) waltz, (6) two-step, (7) barn dance, (8) quadrille, (9) waltz, (10) two-step, (11) waltz, (12) two-step, (13) barn dance, (14) waltz, (15) two-step, (16) extra, (17) extra, (18) "Home, Sweet Home."

CONVENTION OF ILLINOIS RETAIL HARDWARE MEN.

The convention of the Illinois State Retail Hardware Association will be held at Springfield, Ill., on February 17-19. The Chicago Retail Hardware Association will attend the convention in a body and will leave Chicago at 11 a. m. on February 16, on a special train over the Wabash Railroad, under the management of "Pop" (W. H.) Bennett. As going to show the loyalty of the Chicago Retail Hardware Association to the state association, the Chicago association will pay the railroad fare of its members, which will insure a full attendance of the 180 Chicago members. Headquarters will be at the Silas hotel.

A GOOD TOOL DISPLAY.

The judges in THE AMERICAN ARTISAN'S hardware window display competition spoke very favorably of the display, shown in the accompanying photographic reproduction, made by W. S. Easeley, with the Janssen Hardware Co., Eureka, Cal.

This window was arranged essentially for a tool display. The dimensions were 18 feet by 5 feet 6 inches. The background consisted of a series of sample boards 3½ feet by 3 feet in size, covered with black cloth. On these were arranged sundry small tools, such as nippers and pliers, brace bits, chisels and screw drivers, each board being confined to one line. The sample boards reached to the top of the back panel, above which was a line of plate glass, affording a clear view of the interior of the store.

Honorably Mentioned by the Judges in THE AMERICAN ARTISAN'S Hardware Window Display Competition—Submitted by W. S. Easeley, with the Janssen Hardware Co., Eureka, Cal.

The wall end of the window was covered with black cloth to a height of about six feet, and on this a variety of hand saws were arranged. Fronting the sample boards in the rear, a series of bench drills were arranged, and at intervals between these breast drills were fastened into the floor with drill attached. On some of the larger drills other tools were attached, and hung or laid on top. The whole gave the necessary raise to the rear display. Next in front was a light rack with two inclined planes descending from a raised center, and used as a support for heavy chisels and gouges, which were laid diagonally with the handles resting on the rack. Beneath these, the black covering on the floor was relieved by small tools with a bright surface. Next toward the front of the window was placed a line of machinists' taps and dies in sets, and the spaces between these were set off with various smaller tools, oil stones, slips, etc.

The triangular end of the window was given over to machinists' tools, steel tapes, etc. Suspended from the ceiling by a brass chain was a plate glass shelf, on which were displayed smaller tools. Suspended from the ceiling along the front were a number of plumb bobs, and further back some buck saws, mainly to relieve the vacant appearance when looking at the window from across the street. The buck saws were also used as a means for suspending a few light articles such as nickel-plated pocket levels, etc., in rows. Here and there the background of the window was relieved with signs, one of which read as follows: "A Good Mechanic Wants a Good Tool; A Poor One Needs It."

$100.00 IN GOLD FOR HARDWARE WINDOW DISPLAYS.

Unusual interest is being taken this year in THE AMERICAN ARTISAN'S hardware window display competition in which $100.00 in gold will be given away. Hardware men realize that by entering this contest they are given an opportunity to become more proficient in the very important science of window dressing, a matter which is of vast importance to the carrying on of a successful business.

A list of prizes to be awarded and the conditions governing the contest follow:

The Prizes.

The prizes will be awarded as follows:

First Prize, $50 in gold for the best photograph and description received of a window display of hardware.

Second Prize, $25 in gold for the photograph and description second in excellence.

Third Prize, $15 in gold for the photograph and description third in excellence.

Fourth Prize, $10 in gold for the photograph and description fourth in excellence.

The Conditions.

The conditions of the competition are as follows:

The photographs may be sent by mail or express, charges prepaid, and must reach this office not later than March 15, 1909. Address all photographs to THE AMERICAN ARTISAN Prize Competition, 355 Dearborn street, Chicago, Ill.

Each photograph and description must be signed by a fictitious name or device and the same name or device must be put upon a sealed envelope containing the real name and address of the contestant. This sealed envelope is to be enclosed with the photograph.

Award of Prizes.

A competition committee of three will be appointed, one of whom will be an expert window dresser and one an experienced hardware man. This committee will pass upon the merits of all photographs and descriptions received, without knowing the names or addresses of the senders, and will decide the winners of the contest.

THE AMERICAN ARTISAN reserves the right to publish all photographs and descriptions submitted in this competition.

THE "BEST" T CHIMNEY TOP.

The accompanying illustration shows the "Best" T chimney top, which has been put on the market by the Sterling Foundry Co., Sterling, Ill. This top is made of cast iron to fit the Sterling Foundry Co.'s No. 10½ "Best" chimney cap, on which it is shown in the illustration. The No. 10½ cap will fit the following sized flues: 4x8, 8x8, 4x12 and 8x 12 inches. The T is cast in halves and bolted together at the top and with two bolts at the bottom, which act as a clamp, holding the T rigidly to the collar of the cap. The openings can be set in any position desired to suit the conditions under which the top is to be used. The legs of the cap projecting inside the chimney hold the top firmly in position. Further particulars may be had by writing the Sterling Foundry Co. for their catalogue and price-list of hardware specialties. When writing kindly mention THE AMERICAN ARTISAN.

The "Best" T Chimney Top.

ANNUAL CONVENTION OF BUTLER BROS.

The annual convention of those who help to direct and carry forward the work of Butler Bros. was recently held in Chicago. Upwards of 200 of the prominent men of the organization, from New York, Chicago, St. Louis, Minneapolis, Baltimore, Seattle, Dallas, San Francisco and Omaha, attended the three days' session, which ended with a dinner given by President E. B. Butler in the new banquet room at the Chicago Athletic Association on Thursday, January 7. The convention was by far the most successful Butler Bros. have ever held.

THE RICHARDS MFG. CO. ENTERTAIN THEIR SALESMEN.

As a means of more thoroughly familiarizing the traveling force of the company with their products, namely, door hangers and hardware specialties, the Richards Mfg. Co., Aurora, Ill., hold an annual reunion, which gives their salesman a chance to renew their personal acquaintances with the concern and its officers. A banquet given on December 30, 1908, was the finale to a two days' convention in which the officials of the concern, traveling men, office force and department superintendents participated. Covers were laid for thirty, and the menu was perfect and faultlessly served in eight courses. The tables were beautifully decorated with floral tributes in keeping with the holiday season. At the conclusion of the dinner a program of toasts was introduced and music rendered. In the absence of President John H. Pease, Vice President O. N. Staley introduced the toastmaster, W. H. Fitch, secretary and manager of the company. Among those who contributed toward the enjoyment of the occasion were: Jesse V. Wise, Chicago; M. D. Jones, Aurora; W. J. Gilbert, Detroit, Mich.; Treasurer H. O. Spencer, Aurora; W. C. Gaye, Harvard, Ill.; D. C. Pease, Aurora; H. P. Chenoweth, Birmingham, Ala.; L. Weeda, Dubuque, Ia.; E. R. Strain, Peoria, and Lee Mighell, Aurora. The year 1908 proved to be a good one for the Richards Mfg. Co.

LAWN MOWER CATALOGUE OF THE SUPPLEE HARDWARE CO.

The Supplee Hardware Co., Philadelphia, Pa., are sending out a catalogue illustrating and describing the lawn mowers of "Pennsylvania quality" handled by them. "Pennsylvania" lawn mowers have stood the test of 30 years and are known throughout the country for their general efficiency and reliability. The use of high-grade steel in the knives, and the tempering of each blade, both stationary and revolving, are characteristics of "Pennsylvania" lawn mowers. The special features of these mowers include the open cylinder, the open wheel, the train of gears and the self-sharpening device. "Pennsylvania" mowers are of the ball-bearing type and cost the users very little for repairs and re-sharpening. Mowers using a train of gears run easily and steadily by reason of the great length of the wheel base. The driving wheels may drop into a rut, but before the knives reach it the wheels are out again and the grass is cut smoothly for the reason that the wheels and roller span the rut. There is also the additional advantage of a better distribution of wear and tear and increased power and speed. The various styles and sizes of "Pennsylvania" lawn mowers handled by the Supplee Hardware Co. are very fully described in the 32-page catalogue which they are sending out. When writing for it kindly mention THE AMERICAN ARTISAN.

THE "WARREN SYSTEM."

The "Warren System" is the title of a highly artistic souvenir catalogue of 150 pages, issued by the J. D. Warren Mfg. Co., Chicago, illustrating and describing their celebrated line of hardware store equipment. The book is one of the most elegant volumes of the kind we have seen. The illustrations are exceptionally good, many of them appearing in a number of colors, and showing how the "Warren System" is being used very advantageously and successfully in stores in the United States and other countries. The "Warren System" of hardware store equipment, as is

well known, consists of interchangeable patent glass-front cabinets and bases in units containing a multiplicity of compartments constructed to carry and display all classes of hardware and auxiliary goods, through its elasticity adapting it to varying quantities, and as practical and accurate in transactions of business, and responds to the requirements of the people in its utility with great value in economy in business methods. The J. D. Warren Mfg. Co. state that the retail merchant who has his store equipped with the "Warren System" can tell in what kinds of goods his money is invested, and can ascertain the amount in each class and each size or number, as conveniently as he can learn the amount invested in the different denominations of coin and currency in his cash register, and through this information he can add to one and discontinue buying another, as the various lines and seasons require. In the company's handsome souvenir book are shown detached shelving, both open and with shelf drawers, with the goods placed in them; also wall cabinets, counters, cases, glass-door and display bases. With the book that the J. D. Warren Mfg. Co. are sending out is sent an attractively printed folder showing a photograph of the author of the work, J. D. Warren, president of the company. When writing the J. D. Warren Mfg. Co. kindly mention THE AMERICAN ARTISAN.

THE 1909 "PERFECTION" CORN POPPER.

The Bromwell Brush & Wire Goods Co., Cincinnati, Ohio, are sending out a circular describing the 1909 "Perfection" corn popper, manufactured by them. This popper combines all the advantages of a metal corn popper, and the manufacturers state that it presents advantages over many types of metal corn poppers now on the market. Some forms of metal poppers have solid iron lids, and the popper becomes very hot, frequently resulting in the corn burning. The ventilated wire cloth top on the 1909 "Perfection" corn popper obviates this. With this popper it is possible to see the corn pop and pop it in the seasoning. Another point in the 1909 "Perfection" popper is the patent attachment in the way in which the lid is locked or opened by a simple yet novel mechanism that is operated by a slight motion of the thumb at the end of the handle, thus preventing any burning of the fingers in handling the hot end of the popper when in use. The coarse wire cloth screen in the lid of the corn popper, enables the operator to sift out the half-popped kernels into the fire, if desired. When writing The Bromwell Brush & Wire Goods Co. for further information and prices kindly mention THE AMERICAN ARTISAN.

RETAIL HARDWARE DOINGS.

NEW FIRMS AND CORPORATIONS.

Roff, Okla.—The Roff Hardware Co. has been incorporated with a capital stock of $10,000.

Ruthven, Ia.—John Schimek, Jr., has engaged in the hardware business.

Hazelton, Ia.—Wm. Hasbrouck has opened a hardware and implement store.

Bosler, Wyo.—H. Luther has opened a hardware and implement store.

Oxford, Ind.—J. P. Cooper has engaged in the hardware and implement business.

Ionia, Kas.—Wiley Alcorn has opened a hardware store.

Silverwood, Mich.—H. Seyfarth has engaged in the hardware business.

Mayville, N. D.—The Central Hardware Co. has been incorporated with a capital stock of $35,000.

Kootenai, Idaho.—Kunziker & Weissenburg have engaged in the hardware business.

Bloomfield, Mo.—The Reddick Hardware Co. has been incorporated with a capital stock of $5,000.

Oto, Ia.—Edward Gradit has opened a hardware store.

BUSINESS CHANGES.

Perham, Minn.—A Markel has purchased the hardware stock of M. J. Tulley.

Chillicothe, Mo.—R. H. Mecaskey of the hardware firm of Deardorff & Mecaskey has sold his interest to Mr. Deardorff.

Atkins, Ark.—J. R. Reynolds has sold his stock of hardware to Dorr & Lemley.

Oelwein, Ia.—F. E. Peet has sold his hardware store to O. R. Gates of Independence.

Duncan, Okla.—Robberson & Ridge have been succeeded by the Duncan Hardware Co.

Fredonia, N. Y.—Fred W. Case, of the hardware firm of Case & Zahn, has sold his interest to his partner, John M. Zahn.

Eureka Springs, Ark.—A. N. Matthews & Son have sold their hardware business to Jas. Goode of Winterset.

Superior, Neb.—J. H. Hafner has sold his hardware stock to John Mullet.

Monmouth, Ill.—Geo. A. Schussler has sold his hardware business.

West Chicago, Ill.—Gridley & Son succeed Gridley & Goetz in the hardware, stove and plumbing business.

West Chicago, Ill.—Chandler & Goetz succeed Boynton & Kelcham in the hardware, stove and plumbing business.

Langdon, N. D.—Robert Work & Co. have purchased the hardware business of Mercer & Lavin.

South Whiteley, Ind.—Chas. H. Jewett has purchased the hardware business of John F. Schoenaur.

Arena, Wis.—Geo. Hamilton has purchased a half interest in the hardware and implement business of F. M. Allen.

Lamont, Ia.—The hardware firm of Shariff & Sager has been dissolved, Mr. Sager will continue the business.

MISCELLANEOUS.

Bay City, Mich.—The Bay County Hardware & Implement Co. has increased its capital stock to $15,000.

Texarkana, Ark.—The J. L. Chatfield Hardware Co. suffered a loss due to fire.

Allentown, Pa.—Hersh Bros. are enlarging their hardware business.

Oakland, Cal.—A. Rittinstein's hardware store was damaged by fire.

Leonardville, Kas.—The hardware store of John Stafford was damaged by fire.

Hereford, Tex.—The stock of the Hereford Hardware Co. was damaged by fire.

Gilmer, Tex.—The hardware stock of Roberts & Oliver was damaged by fire.

Gilmer, Tex.—The hardware stock of Bryan & Boyd was damaged by fire.

West Chicago, Ill.—Karswell & McCabe have opened a tinshop.

West Chicago, Ill.—Christ Fry has opened a tinshop.

The sixteenth annual convention of the Retail Merchants' Association of Illinois will be held at East St. Louis, Ill., on February 9, 10 and 11. Headquarters will be at the Royal hotel. Secretary Geo. E. Green, 506 Woolner building, Peoria, is sending out a circular extending a cordial invitation to every retail merchant in Illinois to attend the convention. Ample accommodations have been arranged for all delegates and visitors.

Advertising Department

Our readers are invited to send in copies of their advertisements in the local press for criticism. All communications should be addressed to the "Advertising Department" of THE AMERICAN ARTISAN.

Geo. W. Richey of Council Bluffs, Iowa, has a fairly good advertisement in that which is shown herewith in reduced form. Mr. Richey calls attention to his stock of stoves in a manner that is sure to attract attention and to induce prospective purchasers of heaters to inspect his line. Too much matter has been used, however, and as a result the ad. presents a somewhat congested appearance. The word "of" in the phrase

"at the sign of the owl" should not be so close to the proprietor's name. As Mr. Richey's ad. is in the main a stove announcement, the sentence in which other articles are referred to might have been omitted, which would enable him to present an advertisement that would not have looked as crowded as this one. In other respects, however, the ad is a commendable one. It appeared in the *Council Bluffs* (Iowa) *Daily Nonpareil* of December 13, and took up three inches of space, two columns wide.

* * *

Jacob Ernwine & Son of Louisville, Ky., have a very good advertisement in that shown herewith in reduced form. The display feature, however, is a little bit strong. For instance, "This warranted hollow-ground razor" and "$5.00 will not buy a better one, etc.," would have looked better had smaller type been used. The heavy black effect so evident would thus have been relieved somewhat. Though there is not a great amount of matter in the ad, so much heavy black type tends to give it a crowded appearance. The ad is well written, however, and in other respects is not amenable to much criticism. It ap-

peared in a Louisville (Ky.) newspaper of a recent date and took up three inches of space two columns wide.

* * *

Hunter & Strehlow of Peoria, Ill., have a well-written and well laid out advertisement in that which is shown herewith. The description that is given of the "Sterling Lexington" steel range is comprehensive and forceful arguments are advanced why this range should not be overlooked by intending purchasers. The type selections are uniform throughout and the entire ad, with the exception of a worn-out letter or two, is what might be termed a winner. The rules

which appear below the first line of the ad, however, might have been dispensed with without detracting from the prominence of that line. Such rules are rarely used nowadays in the best advertisements. The ad here shown appeared in a Peoria paper of a recent date and occupied four inches of space, three columns wide.

Heating and Ventilating

AMERICAN SOCIETY OF HEATING & VENTILATING ENGINEERS.

The fifteenth annual meeting of the American Society of Heating & Ventilating Engineers will be held in the Engineering Societies' building, 29 West Thirty-ninth street, New York City, on January 19, 20 and 21.

The first session will be held on Tuesday afternoon, January 19, at which the president's address will be delivered and the reports of the secretary, treasurer and various committees read. At the evening session, which will be opened at 8 o'clock, reports of various committees will be presented and these, among other topics, discussed: "A Standard Rating for Fans and Blowers Based on Diameter, Width of Wheel and Revolutions Per Minute," "The Necessity for an Accurate Standard Rating for House Heating Boilers."

At the afternoon session of Wednesday, January 20, W. W. Macon will read a paper on "Air Cooling by Refrigeration." "Notes on the Design of Furnace Heating Systems, With an Application to a Ten-Room Residence," will be the subject of a paper to be read by J. D. Hoffman. Topics for discussion at this session will include "Air Cooling by Means of Air Washers," "The Relative Carrying Capacity of Horizontal and Vertical Warm Air Pipes," "The Effect of Shape on Warm Air Risers," "State Control for Heating and Ventilating Engineers." On the adjournment of the afternoon session there will be a general reception to the members, their ladies and guests in the parlor of the New Grand Hotel, Thirty-first street and Broadway, from 6 to 7:30 o'clock. At the close of the reception the annual dinner will be served, at which President James Mackay will be the toastmaster.

At the morning session of Thursday, January 21, which will open at 10:30 o'clock, James A. Donnelly will read a paper on "Miniature Steam Traps and Their Application to Steam Circulation." A number of interesting topics will be discussed at this session. "The Effect of Wind on Heating and Ventilating" will be the subject of a paper to be read by H. W. Whitten at the afternoon session of Thursday. Officers will be elected and installed at this session and various topics discussed.

CONVENTION OF KELLOGG-MACKAY-CAMERON CO.'S SALESMEN.

A very interesting and successful convention of salesmen, representing the Kellogg-Mackay-Cameron Company, Chicago, was held in Chicago on January 11 and 12. Branch and sales managers, country and city salesmen of the company were in attendance. Addresses were made, papers read, and general discussions held. Condition of trade throughout different sections of the country, probable demand for material, architect's outlook, construction of boilers and radiators, manufacture of specialties, and heating and plumbing supplies, were among the subjects considered.

Much benefit was derived from the many valuable suggestions advanced, relative to selling goods and handling credits. A new line of boilers, for both steam and hot water, possessing many advantageous features not embodied in boilers of any other make, was displayed, and thoroughly discussed. A new line of radiation, not yet catalogued, was also exhibited and exploited, and it was the unanimous opinion of the salesmen, that use of the already extensive line of steam and water boilers and radiation sold by the company, to which will be added the new lines of boilers and radiators mentioned, will place them in a very enviable position with the trade.

On the evening of Monday, January 11, a banquet was held at the Chicago Athletic Club, covers being laid for sixty-two. Toasts were given by members of the firm, prominent visitors, managers and salesmen. Altogether, a very enjoyable evening was passed.

GREEN'S "COLONIAL" FURNACE.

The Green Foundry & Furnace Works, Des Moines, Ia., are calling the attention of the trade to Green's "Colonial" furnace, which is made in four sizes, 21, 24, 27 and 30-inch fire pots, and 40, 46, 52 and 58-inch casings. This furnace has a deep ash-pit, a solid one-piece base ring, a hot air blast fire bowl, a large combustion chamber, double feed doors, and an oval radiator, with collars for long distance heating. It has a revolving grate, the bars of which work independently, a water coil pocket and two clean-outs. Green's "Colonial" furnace is well known to the trade for its reliability and great heating qualities. When writing the Green Foundry & Furnace Works, Department "A," Des Moines, Ia., kindly mention THE AMERICAN ARTISAN.

Green's "Colonial" Furnace.

PARAGRAPHS.

The Midland Club of Furnace Manufacturers met at the Auditorium Annex, Chicago, on January 12, some twenty firms being represented. The meeting was a very successful one.

William A. Cameron, who recently retired from the Kellogg-Mackay-Cameron Company, Chicago, and organized the Cameron-Schroth-Cameron Company, which is to occupy the five-story building at 189-193 Michigan street, Chicago, has conveyed to the first-named company the five-story building which it occupied at the southwest corner of Michigan avenue and Twelfth street. He also conveyed the leasehold interest.

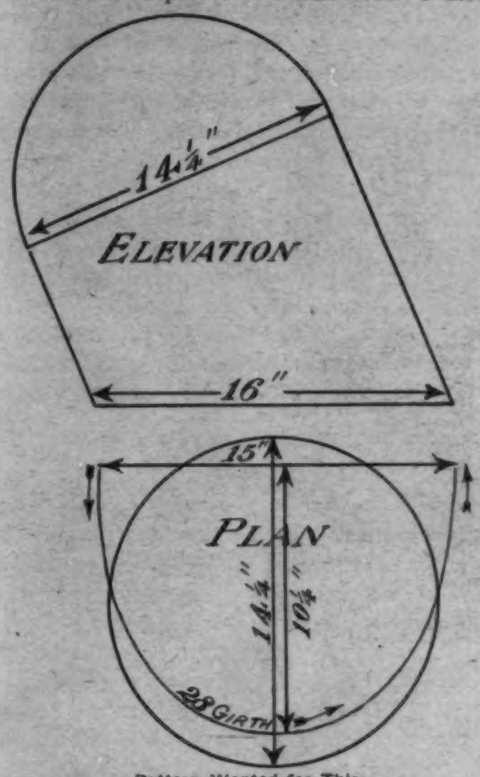
Mrs. Frances A. W. McIntosh, formerly advertising manager of the Buffalo Forge Company, Buffalo, N. Y., and associate companies, has resigned that position to open an office where her services in the preparation and printing of advertising literature can be secured. Her card advises that correspondence should be addressed to her at 103 Anderson place, Buffalo. Mrs. McIntosh makes a specialty of preparing catalogues and other advertising literature.

Tinshop

PATTERN WANTED OF A ROUND PIPE TO INTERSECT A PROFILE OF A HALF OVAL.

To THE AMERICAN ARTISAN:

I am submitting herewith a drawing of a round pipe to intersect a profile of a half oval. I desire to



Pattern Wanted for This.

be informed through the columns of your valuable paper how to lay out a pattern for this sketch.

MARTIN FOESTE.

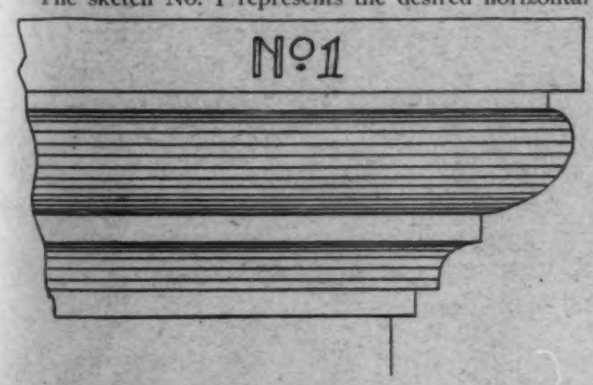
Paris, Tex., 614 N. Main St., Jan. 7, 1909.

SQUARE CORNICE MITRE.

BY W. T. MASON.

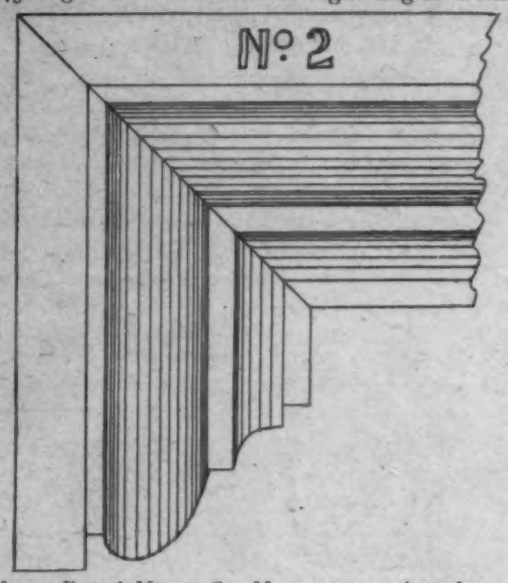
The square cornice mitre, as applied to horizontal or panel mold is the simplest and most used of all cornice mitres.

The sketch No. 1 represents the desired horizontal

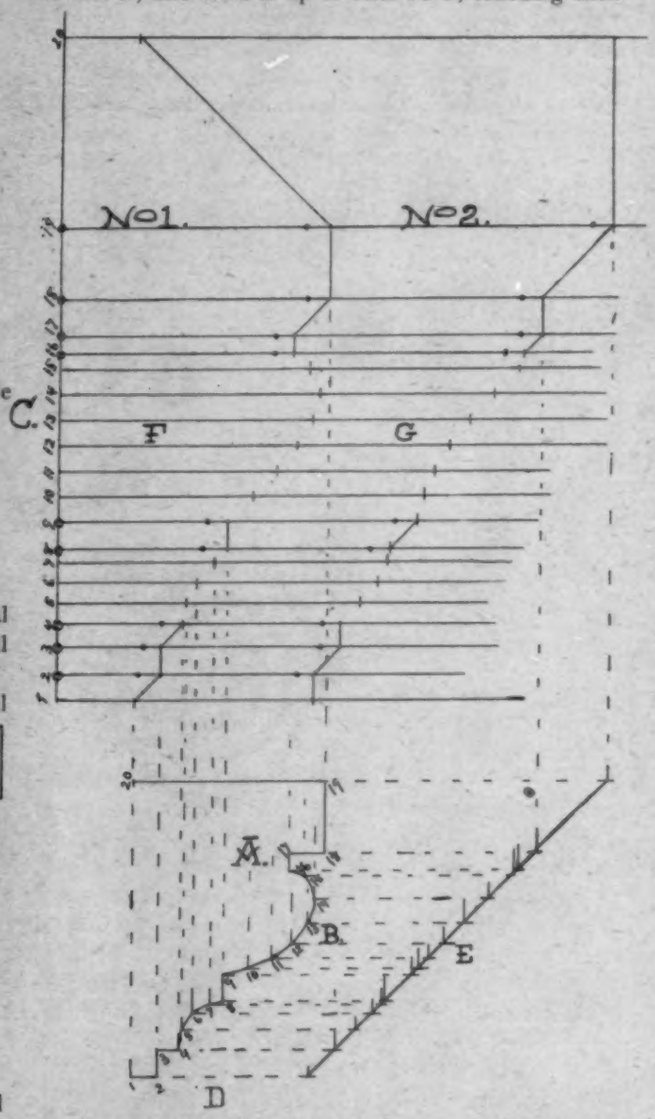


mitre, and sketch No. 2 represents a square panel mold.

Lay out profile or stay marked *A* (third cut), and divide at pleasure, as at *B*. Draw line *C*, and transfer spaces from *B* to *C*; strike angle *DE*, which is angle of 45 degrees. Draw lines at right angles from *C*,



as No. 1 *F* and No. 2 *G*. Now carry points from *B* to line *E*, and from *E* up to lines of *G*, touching each



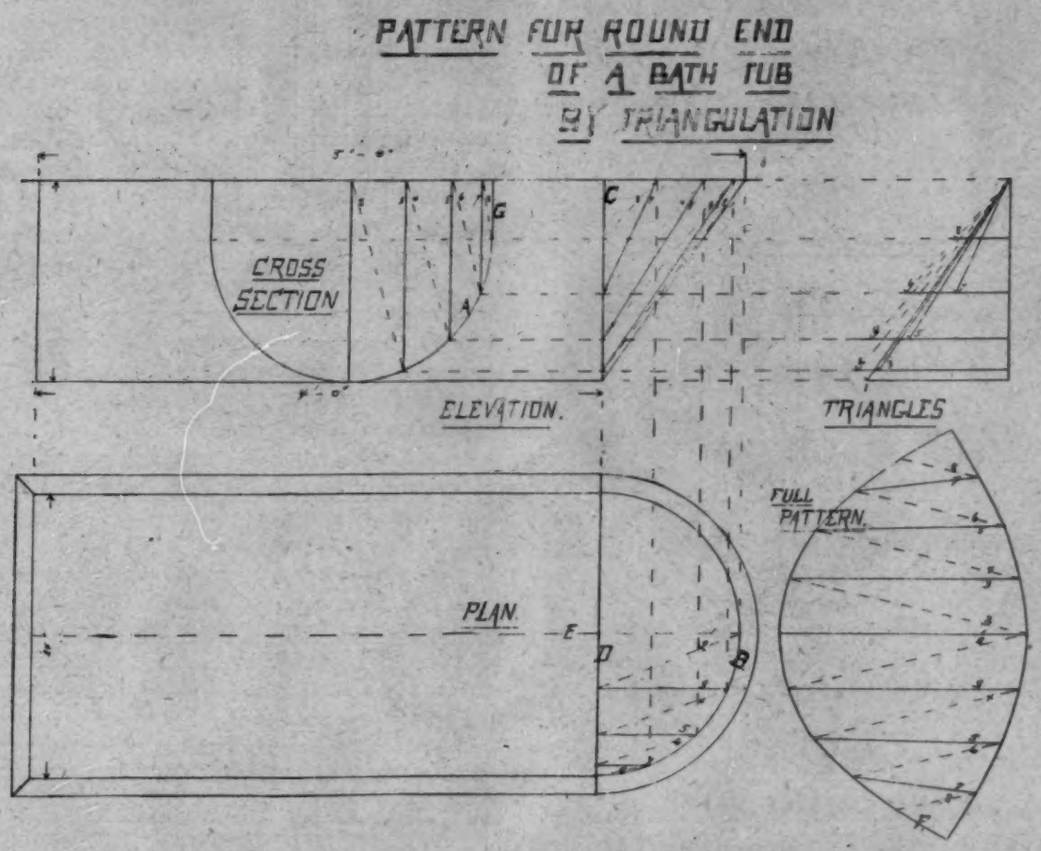
corresponding numbered point or line. Now carry points of *A* at *B* up to *F* in the same manner, and

you have the patterns for both mitres in one stretch-out.

PATTERN FOR ROUND END OF A BATH TUB BY TRIANGULATION.

BY G. L. GRAY.

First draw plan and elevation the size desired, and draw cross section. Then space circles A and B equally; these circles are both the same size, so that the spaces will be the same. Draw dotted lines from points on circle A to miter line C; then draw dotted lines from circle B to elevation, as shown. Connect these points with dotted and full lines, numbering same as shown. Then in plan draw from points on circle B to line D, parallel with center line E; draw dotted lines 2, 4, 6, 8.



Construct triangles as shown, taking the length of each line in plan, and setting on proper line in triangles. Then for pattern, take the true length of each line on triangles, and for spaces make the same as on circles A and B for both sides of pattern. For space F, take the length from cross section as G.

THAT QUESTION IN LIQUID MEASURES.

To THE AMERICAN ARTISAN:

I noticed in THE AMERICAN ARTISAN of December 26 a question relating to liquid measures asked by "Minnesota Thoughts" of Hallock, Minn. There are 231 cubic inches in a standard gallon wine measure, and 282 cubic inches in a standard gallon beer measure. For the quart it would be one quarter of either measure, according to what is to be measured. If beer, it would be 70.5 cubic inches. If you take 4½ inches as the diameter, or 15.904 as the area, the height would be as many times as the area is contained in 70.05, which would be 4 7/16. Due allowance should be made for locks, bottom and wire. For the gallon measure with a diameter of 7½ inches and an area of 44.178, the height will be 6⅜ inches.

JAMES E. ALBINSON.

Washington, D. C., 1802 14th street N. W., Jan. 9, 1909.

GOOD ADVICE FOR MASTER SHEET METAL WORKERS.

The regular meeting of the Master Sheet Metal Workers' Association of Brooklyn, N. Y., was held on January 7. President W. H. Ostheimer, in a letter which he sent out to members urging them to attend the first meeting of the new year, stated that in many ways the year 1908 had been one of advancement for the Brooklyn local. Among the most notable matters undertaken by the association during the past year, President Ostheimer mentioned the following: The organizing of the Manhattan local and the trade school for apprentices at Pratt Institute; the better understanding with manufacturers and jobbers tending to improve the association's relations with them; and the improved condition of the master sheet metal worker who has tried to live up to the principles of the Brooklyn organization. President Ostheimer in his letter took occasion to refer to a very important point, namely, that the Brooklyn association would always stand as the staunch advocate of the unity of master sheet metal workers, and continue the missionary work of pounding into the brain of the master that he should aim to get a profit out of his work, sufficient to give him a good living, and enable him to have a competence large enough to take life easy when

muscle and brain demand a rest in old age. In concluding his letter Mr. Ostheimer referred to the benefits to be derived through organization.

MILWAUKEE MASTER SHEET METAL WORKERS ELECT OFFICERS.

At the monthly meeting of the Master Sheet Metal Workers' Association of Milwaukee, Wis., held on January 6, the following officers were elected for the ensuing year: President, Louis Hoffman; vice president, H. E. Bartelt; treasurer, Jos. M. Hollitz; secretary, Paul L. Biersach. The meeting was a very enthusiastic one and a great many matters were discussed and disposed of. It was decided to have a "smoker" following the February meeting, and J. M. Hollitz and J. Bogenberger were appointed as a committee of arrangements for this event. A relief committee for the Italian sufferers consisting of Louis Hoffman and J. Bogenberger appealed to the members for donations, which were heartily responded to. The Milwaukee local also decided to approve of the association's button, submitted by the National president, and an order was placed for the same.

A VERY VALUABLE CALENDAR.

The Auld & Conger Co., Cleveland, Ohio, roofing slate, slaters' tools and supplies, are sending out a calendar, the subject matter of which is sure to please the recipient. It shows a map of the Western hemisphere, and a detailed map of the Panama Canal. The latter by reason of the gigantic work now being carried on in the Canal zone will necessarily prove of great and constant interest. The Auld & Conger Co. state that the map of the Panama Canal which appears on their calendar, is the most complete and accurate one published. It affords an excellent idea of the Canal and its details. In sending out their 1909 calendar the company thank their friends and customers for past favors, and solicit future ones. When writing The Auld & Conger Co. kindly mention THE AMERICAN ARTISAN.

CATALOGUE OF STAR ENAMELING & STAMPING CO.

Catalogue No. 11 of the Star Enameling & Stamping Co., Pittsburg, Pa., contains a description of the extensive line of sheet metal wares manufactured by the company. The Star Enameling & Stamping Co. calls attention to the very large increase made to their line during the last two years, and that they now have all the staple items in four grades of enameled ware. They are now producing two complete lines, one of which is the well and favorably known old style gray mottled ware, the other being a very pleasing blue and white Venetian ware. Attention is also called to a number of specialties manufactured by the company not made by other domestic manufacturers, and to the most important items in plain, pieced, stamped and japanned tinware and galvanized ware. In recent additions made to their line of products it has been the aim of the company to secure the very best designs as well as full standard sizes. Within the last two years they have more than doubled the capacity of their factory by the addition of new and improved machinery until they have to-day one of the most modern and complete factories of the kind in the country. The articles illustrated and described in the catalogue include dinner pails of various designs, wash boilers, pans of all kinds, and cooking utensils too numerous to enumerate. When writing for this catalogue, kindly mention THE AMERICAN ARTISAN.

JANUARY STOCK LIST OF THE BASSETT-PRESLEY CO.

The Bassett-Presley Co., Cleveland, O., are sending out their January stock list of angles, bands, bending machines, conductor pipe, copper, corrugated sheets, eaves trough, ferrules, furnace pipe, hexagons, hoops, iron bars, nails, plates, registers, rivets, roofing, sheets (black, galvanized and polished), siding, solder, tin, turnbuckles, zinc, etc. The company calls special attention to the "American" iron and steel bending machine, a useful and practical device for sheet metal workers, machinists, blacksmiths and wagon makers. This machine is guaranteed to do satisfactory work, and The Bassett-Presley Co. will be pleased to furnish further information regarding it. As exclusive sales agents, and by reason of their connection with the mill, The Bassett-Presley Co. are able to furnish material requiring mill shipments to the advantage of their customers. When writing them, kindly mention THE AMERICAN ARTISAN.

GRIFFITHS' CHARCOAL IRON ROOFING.

Griffiths' Charcoal Iron Mills, Washington, Pa., are calling the attention of the trade to Griffiths' charcoal iron roofing, which they say is identical, physically and mechanically with the old iron plates, being manufactured from the raw materials in the same way and by the same method. In a booklet, which the concern is sending out this method is described as follows:

The raw material is placed in an old-style open knobbling fire in layers, alternating with layers of charcoal made from selected hard wood. By the combustion of this fuel, and the efforts of the workman, who is known as a knobbler, the raw materials are reduced to the form of a ball, consisting of a spongy mass of almost chemically pure iron, but containing, mechanically held in the pores, a quantity of molten cinder or slag. This cinder must be removed, and in order to effect this separation, the ball, at the expiration of the knobbling process, is quickly taken to the anvil of a very large steam hammer. Here it is given a number of heavy blows, expelling the greater portion of the slag and forming the knobbler's ball into a square block or cake of iron, which, however, still contains a small portion of the slag. In order to get rid of this impurity the block or "bloom" is heated to a white heat and again taken to the hammer for a second hammering, after which it is "roughed off" in the mill into a long slab, which is cut up into short lengths for piling. These short lengths, when piled and faggotted are again heated to a white heat, welding the pile into a solid bloom, which is then "finished off" into tin bars in the bar mill. These bars are then rolled in the ordinary way into charcoal iron black

plate, which, being finished, is coated by means of the old-style palm oil process into Griffiths' charcoal iron roofing. When writing Griffiths' Charcoal Iron Mills kindly mention THE AMERICAN ARTISAN.

THE LUNDY DOUBLE-BLAST SOLDERING FURNACE.

The Meyer Foundry & Manufacturing Co., South Bend, Ind., are sending out a folder illustrating and describing the Lundy Double-Blast Soldering Furnace which they have put on the market. The Lundy furnace is called the double-blast because it forces both hot blasts from the outside to the center, instead of from the center out. When the tinner is using one soldering iron both hot blasts are forced directly upon the one remaining in the furnace, thereby heating the soldering iron in quicker time than with one blast. The Meyer Foundry & Manufacturing Co. state that the Lundy double-blast soldering furnace will heat the irons as fast as a tinner can cool them, and when in general use the furnace should be run very low in order not to heat too fast. The gasoline tank of this furnace is made of galvanized steel, 5 x 12, and the brass pump 1 x 10 inches, and enough air can be pumped into the gasoline tank in one minute to run the furnace all day. In a large shop using a number of furnaces any number may be connected with a hollow wire and fed with gasoline from one large tank, saving the time of each man in filling and pumping his own furnace. When writing the Meyer Foundry & Manufacturing Co. for descriptive literature and prices, kindly mention THE AMERICAN ARTISAN.

AN INTERESTING CIRCULAR LETTER FROM SECRETARY GOEBEL.

The Master Sheet Metal Workers' Association of Syracuse, N. Y., held its annual mid-winter banquet on January 14. Following is a letter dated January 11, that Otto Goebel, secretary of the association and of the National Association of Master Sheet Metal Workers, sent out to members of the Syracuse local:

"On Thursday evening, January fourteenth we will hold our annual mid-winter banquet in the Association rooms in the Snow Bldg. This is the enjoyable, get-acquainted, handshake meeting of the year. A fine supper, a good cigar (or ten of them), something to 'wet your whistle,' and an enjoyable time, is what the committee promised us last week. We do not expect that a single man will be absent. You certainly won't, for this is a special invitation from every member of the association, and from me in particular, and you won't turn us down cold by staying away, will you? We wouldn't do that to you.

"Then, too, we have some very important business on hand: Some very important communications on trade protection; please fill out the enclosed statistical blank for the use of the National Association, and hand it in that evening; a copy of the last National convention proceedings, if you haven't a copy yet; a beautiful National association button in blue, white and gold. You want to be in the swim; to see it, is to want it.

"Other business, too much to mention, for the good and welfare of yourself and the association must be transacted, and you want to know all about it. Don't stay away, you can't afford it. Don't make excuses—they are not in order. Don't eat supper at home—bring your appetite with you. Don't be late—8:00 o'clock sharp."

NOTES AND QUERIES.

GASOLENE STOVES.

From John McNamara, 38 West Russell St., Orangeburg, South Carolina.

Kindly give me the names and addresses of some manufacturers of gasolene stoves.

Ans.—Geo. M. Clark & Co., 82 Michigan Ave., Chicago; National Stove Co., Lorain, O.; Ringen Stove Co., St. Louis, Mo.; Schneider & Trenkamp Co., Cleveland, O.; Standard Lighting Co., Cleveland, O.; Dangler Vapor Stove Co., Cleveland, O.

MALLEABLE WIRE STRETCHERS.

From Edwards Bros., McCanna, North Dakota.

Where can we get malleable wire stretchers made from patterns?

Ans.—C. F. Smith Co., DeKalb, Ill.

BIRD CAGES.

From Goodstein & Rosenberg, 1520 Lawrence St., Denver, Col.

Kindly refer us to a manufacturer of bird cages.

Ans.—Bromwell Brush & Wire Goods Co., Cincinnati, O.

ITEMS.

The National Sheet Steel Co., Mansfield, O., are constructing a black and galvanized steel sheet mill. There will be a 26-inch roughing mill, a 24-inch cold mill and four stands of 26-inch finishing rolls.

The American Sheet & Tin Plate Co. will double the capacity of its plant at Morgantown, W. Va. When completed the plant will represent an investment of $1,000,000 and will employ 1,000 people.

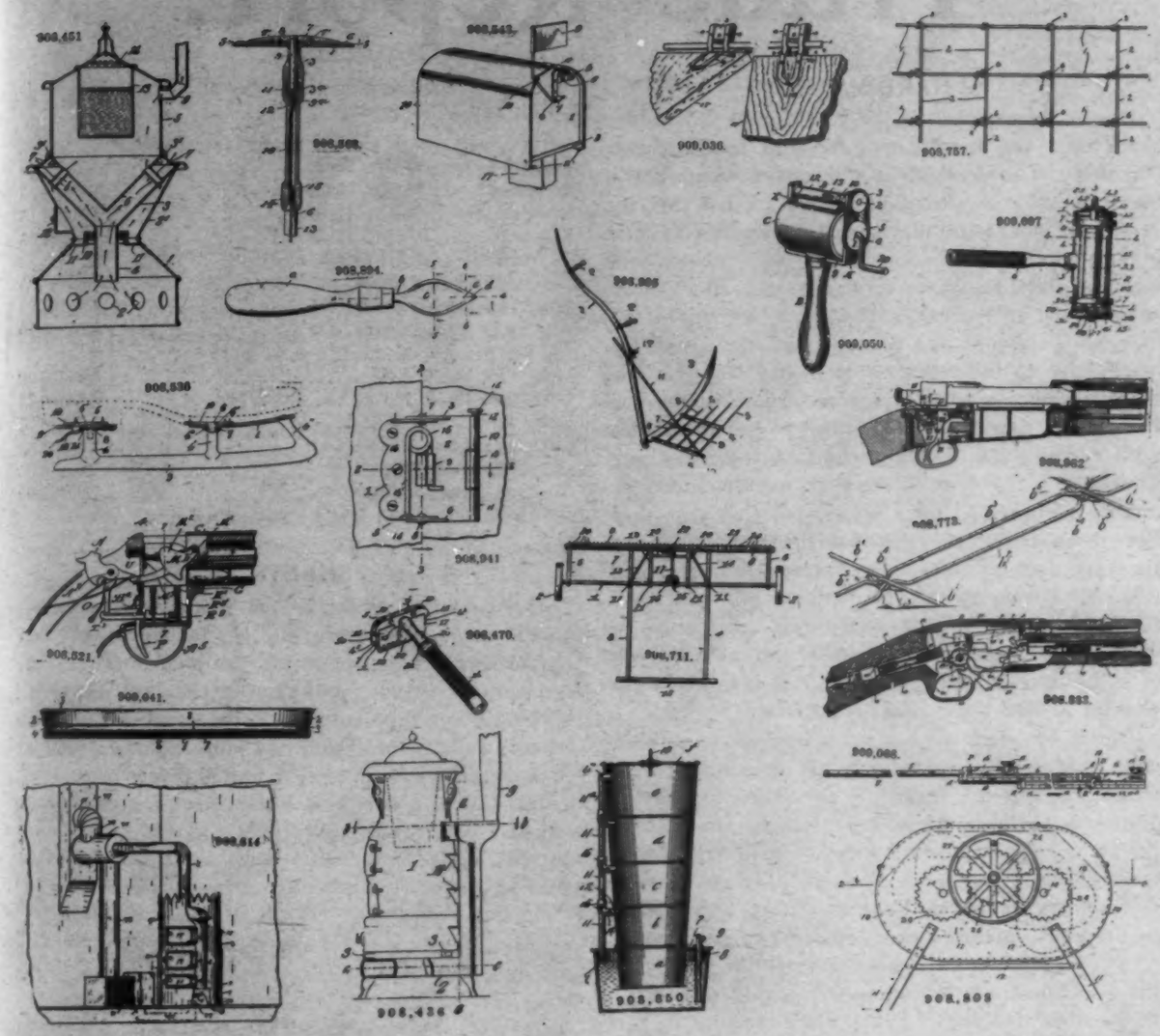
Furlong & Furlong, New York City, have been incorporated with a capital stock of $10,000 to manufacture roofing and cornices. The incorporators are Richard Furlong, William A. Werner and Edward A. Bradley.

At a meeting of the Portland, Ore., Association of Master Sheet Metal Workers held on December 30, the following officers were elected to serve for the ensuing year: President, J. E. Tilton; vice president, M. D. Kribs; secretary, I. A. Martin; treasurer, C. J. Burkhart.

The Burt Mfg. Co., Akron, O., recently received from the government an order for two large exhaust heads for installation in power houses in the Panama canal zone as well as filters for several other powerhouses in the zone. The third order from Canton, China, for a total of 34 ventilators has been entered as well as orders for ventilators from Kobe, Japan.

The semi-annual gathering of The Eller Mfg. Co.'s salesmen took place at the offices of the company in Canton, Ohio, January 4, 5 and 6, where routine business for selling the products of the company in the different states was gone over, and the men all left Canton feeling that 1909 will be a splendid year for business. A particularly pleasing feature to the company was the report of every salesman that "Eller's" goods, at all times, met the approval of their most critical buyers. The Eller Mfg. Co. are manufacturers of metal ceilings, eave trough and conductor pipe, metal roofings, cornices and skylights and tin plate.

NEW PATENTS.



908,436. Stove. George M. Adams, Lebanon, Ind. Filed Dec. 20, 1907. Serial No. 407,301.

908,451. Gas Stove. Charles L. Dickerman and Wilson Newman, Ardmore, Okla. Filed June 17, 1908. Serial No. 439,062.

908,470. Safety Razor. James W. Leslie, Wakefield, Mass., assignor to Leslie Safety Razor Company, Boston, Mass., a Corporation of Maine. Filed March 20, 1907. Serial No. 363,334.

908,521. Automatic Magazine Pistol. Algernon P. Trundle, Perryville, Ark. Filed January 15, 1907. Serial No. 352,436.

908,536. Skate. Otto Arlund, Superior, Wis. Filed April 13, 1908. Serial No. 426,841.

908,543. Mail Box. Marshall Brown, Bunker Hill, Ill. Filed August 8, 1907. Serial No. 387,714.

908,568. Safety Razor. Malcolm T. Heil and Clifton T. Heil, Allentown, Pa. Filed February 21, 1908. Serial No. 417,142.

908,614. Individual Room Heater and Ventilator. Frederick H. Schuppener, Stitzer, Wis. Filed March 30, 1908. Serial No. 424,016.

908,711. Lawn-Mower. Joseph Urbanick, Argyle, Minn. Filed Sept. 8, 1905. Serial No. 277,531. Renewed Oct. 6, 1908. Serial No. 456,415.

908,757. Wire Fence. Paul W. Dillon and Washington M. Dillon, Sterling, Ill. Filed Sept. 21, 1908. Serial No. 454,129.

908,808. Washing-Machine. Philip Schneider, Chicago, Ill. Filed Jan. 8, 1908. Serial No. 409,869.

908,773. Wire Fabric. Ozello R. Hunt, Kenosha, Wis., assignor to Vail and Hunt Company, Chicago, Ill., a Corporation of Illinois. Filed May 18, 1908. Serial No. 433,392.

908,850. Steam Cooker. Serrin J. Finch, Los Angeles, Cal. Filed Sept. 6, 1907. Serial No. 391,655.

908,883. Firearm. John D. Pedersen, Jackson, Wyo. Filed June 29, 1907. Serial No. 381,445.

908,894. Tomato-Knife. Frank L. Smiley, Botetourt county, Va. Filed Sept. 21, 1908. Serial No. 454,097.

908,941. Hinge. William C. Boswell, Rossville, Ga., assignor of one-half to Benjamin F. Fritts, Chattanooga, Tenn. Filed April 27, 1908. Serial No. 429,505.

908,982. Firearm. Frank D. Ely, Plainfield, N. J. Filed May 8, 1907. Serial No. 372,599.

908,995. Scythe. John Huss, Middletown, Pa. Filed Aug. 25, 1908. Serial No. 450,130.

909,036. Door Hanger. George A. Swineford, Canton, Ohio. Filed Mar. 9, 1907. Serial No. 361,445.

909,041. Fly-Trap. William S. Wagner, Syracuse, N. Y., assignor to Lewis P. Smith, Syracuse, N. Y. Filed May 16, 1908. Serial No. 433,318.

909,050. Hand Razor Stropper. Charles Ballreich, Pueblo, Colo. Filed June 8, 1906. Serial No. 320,808.

909,068. Extension Rule. Clifford K. Denman and William H. Murphy, Greeley, Colo. Filed Dec. 20, 1907. Serial No. 407,412.

909,097. Device for Sharpening Razor-Blades. James W. Leslie, Wakefield, Mass., assignor to Leslie Safety Razor Company, Boston, Mass., a Corporation of Maine. Filed Mar. 20, 1907. Serial No. 363,335.

Trade Report.

HARDWARE.

It is as yet too early in the year to note any sudden changes in the conditions governing the hardware situation. The demand is still rather quiet, but it may pick up at any time, as dealers are not carrying very large stocks and may soon be compelled to come in and replenish. Salesmen for the jobbers and manufacturers report that retail stocks all over the country are still considerably below normal in volume, and, although the reduction in stocks was primarily due to the tightness of money last year and the disinclination to take unnecessary risks, the continuance of this policy is ascribed to the promptness with which goods are now supplied from the mills. Generally at this time of the year, manufacturers announce revisions of their prices, but this year there have been fewer changes than formerly, owing to the fact that revisions were carried on pretty continuously during 1908. The market is still in a condition which calls for conservatism in contracting for raw material and finished products, and the disposition of both merchants and manufacturers is to avoid purchasing beyond their actual requirements.

During the week the volume of business in wire and wire products has been light, but decidedly hopeful views are held out regarding the future. Many inquiries have been received by jobbers from nearby points in regard to carlot prices of wire nails, but no large business has as yet developed. In cut nails the demand has been rather light, as is usual at this season of the year. Manufacturers of barb wire are looking forward to the spring demand from the South and the Southwest, as the commencement of a revival of business in this line. The present demand is light. Mills are looking forward to a good demand for plain wire and prices are well maintained.

The base price of wire nails at the mill is $1.95 per keg. The jobbing price is $2 at the mill for full car loads, $2.10 at the mill for less than car loads and $2.40 out of store. The base price of cut nails at the mill is $1.80 per keg. The jobbing price is $1.85 for full car loads at the mill, $1.95 for less than car loads at the mill and $2.25 out of store.

In the Chicago market wire nails are quoted as follows: Wire nails, jobbers' car load lots, $2.18; retailers' car load lots, $2.25; painted barb wire, jobbers' car load lots, $2.28; retailers' car load lots, $2.33, with 30 cents for galvanizing; plain wire to jobbers in car lots, $1.98, and to retailers in car load lots, $2.03.

TIN PLATE.

The leading tin plate producers in the Pittsburg district have business enough on their books to maintain operations until April. It is estimated that the output of tin plates during 1908 was 475,000 gross tons, a decline of about 8 per cent, compared with 1907. No other branch of the finished steel industry did as well, unless it was the wire trade. The leading producer is maintaining tin plates at $3.70 a hundred-pound cokes.

Am. coke tins, I. C., from store, New York:	
Bessemer steel, 107 lbs., 14x20	$4.35@4.40
Bessemer steel, 100 lbs., 14x20	4.20@4.25
Bessemer steel, 95 lbs., 14x20	4.10@4.15
Bessemer steel, 90 lbs., 14x20	4.00@4.05
Am. charcoal terne, 8-lb. coating:	
Worcester grades, 14x20, 107 lbs	4.30@4.35
Worcester grades, 14x20, 100 lbs	4.15@4.20
Worcester grades, 20x28, 200 lbs	8.05@8.10
For prompt shipment, f. o. b. mill:	
Coke, tins, 14x20, I. C	3.85@3.90
Coke, tins, 14x20, 100 lbs	3.70@3.75
Coke, tins, 14x20, 95 lbs	3.65@3.70
Coke, tins, 14x20, 90 lbs	3.60@3.65
Charcoal, terne, 20x28, I. C	7.30@7.35
Charcoal, terne, 20x28, 200 lbs	7.00@7.05

Usual difference for odd sizes and weights.

SHEETS.

The American Sheet & Tin Plate Co. started its 37-mill plant at Vandergrift, Pa., January 4, making 111 sheet mills active during the week. The same company started its 7-mill plant at Chester, West Va., which put 135 tin plate mills in the active list. There is much talk of increasing the South Sabraton mill at Morgantown, West Va., to a 20-mill plant.

The following are New York prices for 500-bundle lots and over, f. o. b. mill:

No. 30	$4.05
No. 29	3.80
No. 28	3.65
No. 27	3.35
Nos. 25 and 26	3.15
Nos. 22 and 24	2.95

COPPER.

There is a somewhat easier market for ingot copper, and this has resulted in greater pressure to sell on the part of second-hand operators and speculative interests. The attitude of the leading producers has not changed in any important particular, but outside operators are showing more eagerness to sell, both for spot and for future delivery. Consumers continue to show very little interest in the market, and it is hardly to be expected that they would be especially eager to contract for further supplies while their own business is showing so little improvement. In Europe, with the exception of the Amalgamated Company, all interests are offering from 10s to £1 lower than they were last week. Electrolytic is now offered at about £66, although one or two second hands are asking £66 5s. This is equivalent to about $14.30 to $14.35 in Europe, or about $14.20 f. o. b. New York. Of course it would be necessary to shade this price to make important sales for export. The London market has shown a substantial decline for the week, amounting to £1 13s 9d on spot and £1 11s 3d on futures. The market for sheet copper is steady and unchanged, the base price being 19 cents. Yellow metal is firm, the quotations being 18 cents for dimensions, 16 cents for sheathing and sheathing nails,

17 cents for slating nails and 18 cents for keel and stem metal.

Extreme fluctuations for this year:

	Highest.	Lowest.
Lake copper, spot	15	12⅝
Electrolytic copper, spot	14⅞	12¼
Casting copper, spot	14¼	12½
London, spot	£64 17 6	£56 5 0
London, futures	65 15 0	56 17 6
London, best selected	68 10 0	60 0 0

SPELTER.

Spelter is quiet but firm, New York quoting 5.17½ @5.22½ cents for spot and January delivery. The St. Louis market is dull at 5.10@5.12½ cents. The Boston jobbing price is at 5½@5⅜ cents.

SHEET ZINC.

Sheet zinc is unchanged at 7⅜ cents for cask lots and 8⅜ cents for less than cask lots.

PIG IRON.

The pig iron situation shows very little change from the December condition, though there is no anxiety being felt over the lack of activity. The foundry people have covered their needs pretty well for the first quarter, and the furnaces are well supplied with business for the same period. Therefore it is not strange that the present situation should be considered as normal. There is no doubt that an early renewal of buying would greatly encourage the trade, and that unless this renewal comes before long it will tend to weaken the market. Up to the present time, however, no such effect has been noticed, as the furnaces are not accumulating iron, with the possible exception of a few in the Virginia district which have maintained a very firm position for several months and have not, therefore, been able to dispose of their entire production, as they were not willing to let their iron go at the ruling quotations. At the same time, the foundry people are not accumulating iron, though deliveries are being steadily made on previous contracts.

New business is of small dimensions, and principally for spot iron, though occasionally an inquiry comes to hand for a good sized block of iron for forward delivery. The revised figures for the month of December give the total production of iron in that month as 1,740,898 tons, and the total for the year 1908, 15,630,391 tons, against 25,312,703 tons in 1907, 23,968,560 tons in 1906 and 22,062,492 in 1905. Notwithstanding the quiet tone, prices are very firmly held, and no change of importance is noted in any section North or South. Alabama iron is still being quoted at $13.00@13.50 ton, f. o. b. Birmingham, with the bulk of the business still being done at the outside figures.

CHICAGO MARKET.

Lake Superior charcoal	$19.50
Northern foundry No. 1	18.00@18.50
Northern foundry No. 2	17.50@18.00
Northern foundry No. 3	17.00@17.50
Southern foundry No. 1	17.85@18.35
Southern foundry No. 2	17.35@17.85
Southern foundry No. 3	16.85@17.35
Southern foundry No. 4	16.35@16.85
Southern No. 1, soft	17.85@18.35
Southern No. 2, soft	17.35@17.85
Southern Gray forge	15.60@16.10
Southern mottled	15.35@15.60

PITTSBURG MARKET.

No. 1 foundry	$16.90@17.40
No. 2 foundry	16.25@16.90
Gray forge	15.40@15.90
Bessemer	17.40@17.90
Basic	16.65@16.90

BIRMINGHAM MARKET.

No. 1 foundry	$13.50@13.75
No. 2 foundry	13.00@13.25
No. 1 soft	13.50@13.75
No. 2 soft	13.00@13.25

Rogers, Brown & Co., Cincinnati, will say in their weekly report: "Quiet and steady, but with an increasing evidence of activity, characterizes the pig iron situation during the last week. The feature has been the closing of a round tonnage of foundry iron which has been recently under negotiation.

"The run of small orders for immediate consumption is fair. In the case of larger business, there is a tendency to shop around, without, however, complete satisfaction to intending purchasers, as prices are firm on all grades.

"Some of the leading melters are making inquiry for a considerable period ahead, but with no definite indication that they will be inclined to buy at figures wanted by the manufacturers for such deliveries. In almost every instance there is a premium on second quarter and all deliveries after July.

"Bessemer, basic and pipe making irons continue in fair demand.

"Coke has been quiet and steady for contract requirements of six months' and year's business. There has been a somewhat easier feeling as to spot shipments. This will probably change now that the hard winter season has at last made itself felt in most of the coke regions, and production will drop off."

SEEDS.

The Leonard Seed Co., Chicago, says in its weekly report: "Seasonable weather has created seasonable conditions in the seed line, and this with price-lists in the hands of the buyer has steadied things considerably.

"There is the usual demand for the staple varieties in Vegetable Seeds, and the supply at the present time is about equal to the demand. There seems to be little doubt in the minds of the posted ones, however, that this condition of things will not last long, and it is expected that serious shortages in many of the staple articles will develop.

"Planting in the South as far north as Central Mississippi is now well under way in Peas, Beans and Radishes, and Truckers are beginning to call on the local dealers for supply on all these varieties.

"The range of prices is about as follows, the crops coming from the farmers not holding up to the estimates made during the growing period:

	Per bu.
On Peas—Alaskas, first and best and that type	$5.50
Laxton	$5.25 to 5.50
Gradus being universally held at about	5.50
American Wonders around	5.00
Telephone, Duke of Albany and Alderman at about	5.50
Champion of England and peas of that type at about	4.00

On beans the range of price is from $3.00 to $4.00 bushel on green pods, and about $4.50 on the ordinary sort of wax.

Burpee's Stringless seem to be in shorter supply than some of the other green pods, as almost all growers are holding at about $4.00, with the Giant Stringless at $3.75. Wardwell's apparently are in little better supply than some of the other wax sorts, as they are being held at about $4.50, whereas, last year they were held at from $5.00 to $5.25.

Corn ranges from $2.75 to $3.50 bushel, according to variety and demand.

Onion Seed should move pretty lively, as the price of onions has advanced materially during the past week—60 cts. being paid at the car door. Should the price go to $1.00 during the next month, it will mean a great deal to the seed dealer. Onion sets are in heavy demand with a general stiffening of prices. The cold weather the past week has worried the set shipper considerably, as below zero weather is very hard on this article while in transit, even though every precaution is taken and the shipment sent in the refrigerator car. In this connection it is well to state again that frost does not hurt the Onion Set if properly handled at the receiving end. The main thing to be remembered is to let them thaw out gradually, spreading them well on the floor or in crates, in order that the moisture may pass off in a natural manner. Under no circumstances should a Set be put in a hot place after having been frosted. From the way inquiries are coming in on Onion Sets, it would seem as though the whole country was looking toward Chicago for its supply both for next year's contract and the present supply.

Current Hardware and Metal Prices.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly.

METALS.

FIRST QUALITY BRIGHT PLATES.

		Per Box.
IC	14x20	$6 40
IX	14x20	7 45
IXX	14x20	8 60
IXXX	14x20	9 85
IXXXX	14x20	11 00
IC	20x28	13 70
IX	20x28	15 70
IXX	20x28	18 15
IXXX	20x28	20 55
IXXXX	20x28	22 95

COKE PLATES.

Cokes, 180 lbs	IC	20x28	$ 8 5
Cokes, 200 lbs	IC	20x28	9 00
Cokes, 216 lbs	IC	20x28	9 50
Cokes, 270 lbs	IX	20x28	11 25

PIG IRON.

North'n Fdy., No. 1	$18 00@$18 50
North'n Fdy., No. 2	17 50@ 18 00
North'n Fdy., No. 3	17 00@ 17 50
Southern Fdy., No. 1	17 85@ 18 35
Southern Fdy., No. 2	17 35@ 17 85
Southern Fdy., No. 3	16 35@ 16 85
Southern Fdy., No. 4	16 35@ 16 85
Southern No. 1 Soft	17 85@ 18 35
Southern No. 2 Soft	17 35@ 17 85
Southern Gray Forge	15 60@ 16 10
Southern Mottled	15 35@ 15 60
Lake Sup. Charcoal	20 00@ 20 50
Southern Silveries, 4% Silicon	17 85@ 18 35
Southern Silveries, 5% Silicon	18 35@ 18 85
Southern Silveries, 6% Silicon	18 85@ 19 35
Jackson Co. Silveries, 6 per cent	19 90
Jackson Co. Silveries, 8 per cent	20 40@ 20 90
Jackson Co. Silveries, 10 per cent	21 90
Malleable Bessemer	17 00@ 17 50
Standard Bessemer	17 65@ 18 15
Alabama Basic	16 85@ 17 35

BLACK STEEL SHEETS.

No. 12 per 100 lbs.	$2 20@$2 30
No. 14 per 100 lbs.	2 25@ 2 35
No. 16 per 100 lbs.	2 35@ 2 45
Nos. 18-20 per 100 lbs.	2 60@ 2 65
Nos. 22-24 per 100 lbs.	2 65@ 2 70
No. 26 per 100 lbs.	2 70@ 2 75
No 27 per 100 lbs.	2 75@ 2 80
No 28 per 100 lbs.	2 85@ 2 95

GALVANIZED

No. 10 per 100 lbs.	$3 05@$3 10
Nos. 12-14 per 100 lbs.	3 05@ 3 10
No. 16 per 100 lbs.	3 05@ 3 10
Nos. 18-20 per 100 lbs.	3 15@ 3 25
Nos. 22-24 per 100 lbs.	3 30@ 3 35
No. 26 per 100 lbs.	3 50@ 3 55
No. 27 per 100 lbs.	3 70@ 3 75
No. 28 per 100 lbs.	3 90@ 4 00

POLISHED SHEET STEEL.

No. 24 per 100 lbs	$4 90
No. 26 per 100 lbs.	5 00
No. 27 per 100 lbs.	5 10
No. 28 per 100 lbs.	5 20

SMOOTH STEEL.

Wood's Smooth, No. 20	$3 05
" " No. 22-24	3 10
" " No. 25-26	3 15
" " No. 27	3 20
" " No. 28	3 30

PATENT PLANISHED SHEET IRON.

Patent Planished Sheet Iron, "A" $10.20, "B"	$9 20

PATENT PLANISHED SHEET STEEL.

Mckey Planished Sheet Steel	8½c

SOLDER.

XXX Guaranteed ½ & ½ per lb.	18 c
Commercial ½ & ½ per lb.	17½c
No. 1 Plumbers	15½c

SHEET ZINC.

500 lb. Casks case, per cwt.	$7 15
300 lb. Casks per cwt.	7 15
Sheets per cwt.	7 15

COPPER.

Copper sheet, 100 lbs. over, base	17c

TIN PIGS AND BARS.

Banca, pigs, per lb	29 c
Straights, pigs, per lb	29 c
Straights in bars, per lb	33 c

LEAD.

American Pig	4.37½@4.40
Bar	4.37½@4.40
National (White) brands (in less than 100 lb lots), per lb	8½c
Sheet.	
Full coils per 100 lbs.	$9 00
Cut coils per 100 lbs.	9 50

HARDWARE.

ADZES.

Carpenters'.	
Plumbs	40%
Coopers'.	
Barton's	15%
White's	15%
Railroad	
Plumbs	40%
Ship.	
Plumbs	40%
White's	15%

AMMUNITION.

Caps, Percussion—per 1,000.	
F L Waterproof, 1-10s	40c
G D	35c
Musket	60c
Shells, Loaded—	
Loaded with Black Powder	40%
Loaded with Smokeless Powder, medium grade	40 & 5%
Loaded with Smokeless Powder, high grade	40 & 10 & 10%
Union Metallic Cartridge Co.:	
New Club, Black Powders	40%
Nitro Club, Smokeless Powders,	40 & 5%
Arrow, Smokeless Powders	40 & 10 & 10%
Winchester:	
Smokeless Repeater Grade	40 & 5%
Smokeless Leader Grade	40&10&10%
Black Powder	40%
Gun Wads—per 1,000.	
Winchester Gun Wads	15%

Powder.		Each.
DuPont's Sporting, kegs		$5 50
" " ½ kegs		3 00
" " ¼ kegs		1 70
Dupont's Sm'k'less	50-lb. drum	22 75
" "	25-lb. kegs	11 30
" "	12½-lb. kegs	5 80
" "	6½-lb. kegs	2 97
"	1-lb. cans	52

Shot.	
Drop shot, sizes smaller than B, 25-lb. bags, per bag	1 95
Drop shot, B and larger sizes, 25-lb. bags, per bag	2 20
Buck Shot, 25-lb. bags, per bag	2 20
Chilled Shot, 25-lb. bags, "	2 20

ANCHORS

Expansion Screw Anchors	10%

ANVILS

Trenton, 70 to 80 lbs	9½c per lb
Trenton, 81 to 150 lbs	9½c per lb

ASBESTOS.

Board and Paper	33⅓%

AUGURS.

Boring Machine	70%
Irwin's	40&10%
Carpenter's Nut	70%
Hollow.	
Bonney's—list $30.00	75&5%
Stearns, No. 3	36 00
Post Hole.	
Digwell, 8-inch per doz.	12 50
Iwan's Post Hole and Well	40%
Vaughan's, 4 to 9-in., per dos.	6 60
Rafting.	
Snell's	50&5%
Ship.	
Ford's, with or wi'out screw	40-10%
Snell's " " "	40-5%

AWLS.

Brad.	
No. 3 Handled per doz.	$0 40
No. 1050 Handled "	90
Shouldered, assorted, 1 to 4, per gro.	$1 20
Patent asst'd, 1 to 4 "	85
Harness.	
Common "	95
Patent "	90
Peg.	
Shouldered "	1 50
Patent "	60
Scratch.	
No 1 handled "	4 80
No. IS, socket handled per doz.	1 25
No. 7 Stanley	1 80
Sewing.	
Common per gro.	90
Patent "	90

AXES.

Boy's Handled.	
Lippincott, 3 lb. per doz.	$6 00
Marshall Falls City "	5 50
Broad.	
Plumbs, West, Pat	33⅓%
" Can. Pat	35%
" Firemen's (handled) per doz	$19 00
Plumbs, Miners' (handled) "	9 00
Single Bitted (handled)	
Blood's Champion	$10 50
Blood's Dull Finished	9 00
Rough Rider	9 00
American	6 50
Perfect Premier, Forest Clipper	10 00
Duquesne	6 00
Single Bitted (without handles)	
Blood's Champion	$7 90
Blood's Dull Finish	8 00
Rough Rider	7 00
Electric Chopper	8 25
Duquesne	5 50
Crown	6 25
Double Bitted (without handles).	
Blood's Champion, 3½ to 4½ lbs. per doz	$10 00
Flint Edge " "	9 75
Perfect Premier " "	11 00

The above prices on axes of 3 to 4 lbs. are the base prices.

3½ to 4½ lbs advance 25c
4 to 5 lbs. advance 50c.
4½ to 5½ lbs. advance 75c.

BAGS, PAPER NAIL.

Pounds	10	15	20	25
Per 1,000	$2.50	3.75	4.50	5.00

BALANCES, SPRING.

Frary's	40%
Pelouze	30%

BARS, CROW.

Pinch or Wedge Point per cwt.	$3 75

BASKETS.

Clothes.	
Small Willow per doz.	$7 00
Medium " "	8 75
Large " "	10 50
Galvanized Iron. ½ bu. 1 bu. 1½ bu.	
Per doz.	$4 75 6 50 8 00

BEATERS.

Carpet.	per doz.
No. 13 Tinned Spring Wire	$0 90
No. 11 Spring Wire coppered	1 20
No. 10 Preston	1 10
Egg.	Per doz.
No. 50 Imp. Dover	$0 75
No. 102 " " tinned	85
No. 150 " " hotel	1 50
No. 10 Heavy hotel tinned	2 10
No. 13 " " "	3 30
No. 15 " " "	3 60
No. 18 " " "	4 50

BELLOWS.

Blacksmiths'	65%
Hand.	
8-inch per doz.	$8 50
10-inch "	10 50
Moulders'.	
12-inch "	13 00

BELLS.

Call.	
3-inch Nickeled Rotary Bell, Bronzed base per doz.	$5 00
Cow.	
High Grade	60%
Kentucky	65&10%
Door	Per doz.
New Departure Automatic	$6 00
Rotary.	
3 -in. Old Copper Bell	4 00
3 -in. Old Copper Bell, fancy	6 00
3 -in. Nickeled Steel Bell	4 50
3½-in. Nickeled Steel Bell	5 00
Hand.	
Hand Bells, polished	40&10%
White Metal	40%
Nickel Plated	30%
Swiss	40&33⅓%
Silver Chime	33⅓%
Miscellaneous.	
Church and School, steel alloy	50%

Farm, lbs.	40	50	75	100
Each	$1.50	2.25	3.38	4.50

BEVELS, TEE

Stanley's, rosewood handle, new list	25%
Stanley's iron handle	25%

BINDING, OILCLOTH.

Zinc	80%
Brass	75%
Brass plated	75&5%

BITS.

Auger.	
Extra Double Spur	70&10%
Ford's Car and Machine	40&10%
Ford's Ship	40&10%
Irwin	50%
Russell Jenning's	25&10%
Clark's Expansive	60%
Steer's " Small list, $22.00	25%
" " Large " $26.00	25%
Irwin Car	50%
Ford's Ship Auger pattern Car	40&10%
Center	25%
Countersink.	
No. 18 Wheeler's per doz.	$1 50
No. 20 " " "	2 25
American Snail head "	1 00
" Rose " "	1 00
" Flat "	80
Mayhew's Flat "	1 10
" Snail "	1 25
Dowell	
Russell Jennings	25&10%
Gimlet.	
Standard Double Cut	60%
German Pattern per doz.	$0 60
German "	65
Gouge "	80
Spoon "	1 00
Countersink "	1 20
Reamer.	
Jenning's Square "	2 50
Standard Square "	1 20
German Octagon "	75
Screw Driver.	
No. 7 Common "	50
No. 1 Triumph "	1 25

BLACKING, STOVE. (See Polish).

BLADES, SAW.

Butchers'.
Standard, ¾ & 1¼-in. 40%
Clock Spring 40%
Star 15%
Coil ..... each, $1 50

Hack.
Disston's ..... 25&5%
Flexible ..... 33⅓&5%
Star ..... 20&5%

Wood.
Jackson's ..... per doz. $2 25
Disston's—No. 4, 16, 26 & 045 .. 4 25
Triumph 3 50
Forest Clipper 3 00

BLOCKS.

Snatch.
Wooden ..... 60&10%
Steel 50%

Tackle.
Iron Strapped ..... 70&10%
Com. Steel 60%

BOARDS. (New List)

Stove ..... 50&10%

Wash.
Globe, single ..... per doz. $2 50
Globe, double ..... " 3 35
Memphis Globe ..... " 2 75
Crystal Glass ..... " 4 00
Brass King ..... " 3 75
Nickel Plate ..... " 4 15

BOBS, PLUMB.

Carpenters'.
No. 2, iron ..... per doz. $0 65
No. 00, " ..... " 1 30
No. 0, " ..... " 2 20
No. 3, lead ..... " 2 75
No. 4, " ..... " 3 40
No. 113, brass plated .. " 1 10
No. N30, nickel plat'd. " 1 30
No. N31, " " " 1 85

BOLTS.

Carriage, Machine, etc.
Carriage, ½x6 and sizes smaller and shorter ..... 70&10%
Carriage, sizes larger and longer than ½x6 ..... 60&10%
Machine, ½x4 add sizes smaller and shorter ..... 70&10%
Machine, sizes larger and longer than ½x4 ..... 60&5%
Elevator ..... 50-10&5%
Plow ..... 60&10%
Stove ..... 60&10%
Tire 75%
Wagon Box Strap 70%

Mortis, Door.
Gem, iron 60%
Gem, bronze plated 20%

Barrel.
Cast 60%
Wrought ..... 75&10%
Wrought, bronzed 60%

Flush.
Wrought ..... 50&10%

Spring.
Wrought ..... 75&10%
Wrought, heavy ..... 70&10%

Square.
Cast ..... 50&10%
Wrought ..... 75&10%

BORERS.

Angular.
Miller's Falls ..... per doz. $13 00

Bung. Doz.
Enterprise Mfg. Co 's No 1 ..... 20%
" " " No 2 ... 20%

BOXES

Mail, No. 1 2 10
Per doz. $3.50 5.00 17.50

Miter.
New Langdon ..... 15&5%
Stanley's 30%
Seavey's ..... each, $1 50

BRACES.

Barber's ..... 50&10%
Fray's Genuine Spofford's 60%
" Nos. 66 to 146 ..... 50%
" No. 6108 ..... $3 50
" No. 68 ..... 2 75
" No. 610 ..... 3 00

BRACKETS.

Hay-Rack.
Wenzelmann's No. 1, per doz. $9 00
" No. 2, " 9 60

Shelf.
Cast Iron, bronzed ..... 50-10&5%
Clover Wrought Steel ..... 70&10%
Clover Folding 70%

BROILERS.

Wire 70%
No. Cwron, Self-basting, $0 doz .. $2 50

BUCKETS.

Pump, Rubber.
Wychoff ..... per gro. $4 75
Cooper ..... " 4 75
Champion ..... " 7 50
Victor ..... " 9 25
Star ..... " 5 00
IXL ..... " 6 75

Well.
Galv'd Qts. 10 12 14
Per doz. $2.90 $3.25 $3.40
Wooden, top ear, plain, per doz. 4 00
" " swivel, " 5 10

BUCKS, SAW.

Folding ..... per doz. $2 10

BURRS, RIVETING.

Copper Burrs only 20%
Tinners' Iron Burrs only ..... 65&5%

BUTTS.

Cast Iron ..... 70&5%
Wrought Brass (New List) .... 40&10%
Wrought Steel, Bright ..... 80&10%
Wrought Steel, Japanned.
Nos. 731 and - ..... 70&10&10%

CALIPERS.

Double 35%
Inside and Outside 35%
Wing 30%

CALKS.

Logger's Boot.
(Lufkin R. Co.'s), per M $3 75

Toe.
Shoenberger ..... per lb 5 c
Bessemer ..... " 4½c
American ..... " 7 c
Swedes ..... " 8½c

CANS.

Cheese Factory.
Ontario Pattern.
Gallons 20 30 40
Each $4.25 $5.00 $6.25

Milk.
Holstein.
Nos. 300 301 302
Gals. 5 8 10
Per doz. $26.00 $27.00 $29.00

Chicago Pattern.
Nos. 105 108 110
Per doz. $19.00 $21.50 $23.00

Iowa Pattern.
Nos. 408 410
Per dozen $23.50 $24.50

New Elgin Pattern.
Nos. 705 708 710
Per doz. $25.00 $27.00 $28.00

Burn Pattern.
Nos. 700 701
Gals. 8 10
Price $2.40 $2.65

CAN OPENERS.

See Openers.

CAPS, GUN.

See Ammunition.

CARPET STRETCHERS.

See Stretchers.

CARRIERS.

Hay.
Diamond, Regular ..... each, $3 85
Diamond, Sling ..... " 6 50
Myers' Imperial ..... " 3 85
Myers' Clover Leaf ..... " 4 00

CARTRIDGES.

See Ammunition.

CASTERS.

Standard—Ball Bearing ..... 50&10%
Bed ..... 60&5%
Common Plate.
Brass Wheel ..... 60&10%
Iron and porcelain wheels, new list ..... 60&5%
Philadelphia Plate, new list 60%
Martin's 60%
Payson's ..... 75&10%

CATCHERS, GRASS.

Carroll's, No. C ..... per doz. $4 25
Wildermuth's,.
Nos. 1 2 3
Per doz. $5.60 $5.75 $6.25
Nos. 4 5 6
Per doz. $6.75 $9.50 $10 60

CHAIN AND CHAINS.

Breast Chains.
Doubleslack ..... doz. pairs. $3 75
With Covert Snaps. " 5 00
With Slide ..... " 3 25
Without Slide ..... " 2 85

Bright Ox Chains.
½-in. $7.25; ⅝-in. $9.45 per 100 lbs.

Cable Coil Chain.
Inch ..... 5/16 ⅜ 7/16 ½
Per 100 lbs. $10.80 $8.00 $7.00 $6.20
Inch ..... 9/16 ⅝ ¾ ⅞
Per 100 lbs. $6.00 $5.90 $5.75 $5.65
Inch ..... ⅞ 1 1¼
Per 100 lbs $5.55 $5.55 $5.65

Cable Log Chain.
Advance 25c per 100 lb. on Cable Coil.

Cow Tie Chains.
American, 2 toggle ..... 50&5%
" toggle and snap ... 50&5%
" open and closed ring ..... 50&5%

Halter Chains.
American, new list 33⅓%
German 60%
Niagara, new list 40%
Brown's, " 40%

Picture Chains.
Light Brass, 3 ft. ..... per doz. $0 75
Heavy Brass, 3 ft .... " 1 00

Pump Chain
Galvanized, per 100 lbs. $5 50

Safety Chain.
Brass 60%

Special Steel Loading Chain.
Inch ..... ½ 9/16 5/8
Per 100 lbs. $16.00 $13.50 $12.50

Stretcher Chains.
5/16-in. $8.50; ½-in. $7.75 per 100 lbs.

Tie-Out Chains.
Brown's ..... 70&5%

Trace Chains.
Western Standard.
6½— 6-2 ..... per pair 30c
6½— 8-2 ..... " 34c
6½— 8-3 ..... " 33c
6½—10-2 ..... " 38c
7 — 8-2 ..... " 38c
7 —10-2 ..... " 42c
7 —10-1 ..... " 48c
7 —10-0 ..... " 60c
Add 2c per pair for Hooks.
Add 3c " for Twist Link.

Wagon Stay Chains.
Inch ..... ½ 9/16 ⅝
Per 100 lbs. $6.50 $6.00 $5.50

CHALK, CARPENTERS'.

Blue ..... per gro. 75c
Red ..... " 65c
White ..... " 55c
Common White School Crayon ..... " 10c

CHARCOAL.

In bags ..... per bag 90c

CHECKS, DOOR.

Blount 33⅓%
Sargent's 33⅓%

CHIMNEY TOPS.

Iwan's Volcano 50%

CHISELS.

Box.
Inches 10 12 14
Round per doz. ... $2.10 $2.25 $2.75
Flat " ... 2.85 3.60 4.20

Cold.
Good quality, ¾ in. and larger ..... per lb. .12c
Smaller size per doz. .....

Socket, Framing and Firmer.
Clover ..... 75&10%

Tanged, Firmer.
With handles ..... 30&5%

Choppers, See *Cutters, Meat.*

CHUCKS, DRILL.

Goodell's, for Goodell's Screw Drivers ..... per doz. $6 25
Yankee, for Yankee Screw Drivers 5 00

CHURNS.

Anti-Bent Wood,
Gal. 5 7 10
Each $3.90 $4.60 $4.85
Belle, Barrel ..... 65&7½%
Common Dash, Gal. 4 5 6
Per doz. $7.75 $8.50 $10.50
Union, Gal. 5 7 10
Each $3.65 $3.90 $4.75

CLAMPS.

Adjustable.
Martin's 30%

Carpenters'.
Steel Bar 25%

Hose.
Sherman's, brass, ¾-in., per doz. . 42c
Double brass, ¾-in., " 90c

Saw Filers.
Disston's list, $30.00 ..... 30%
Stearns', No. 0, $3.50; No. 1, $11.50; No. 3, $5.00 doz.
Wentworth's, No. 1, $6.00; No. 3 $8.10.

CLAWS, TACK.

Cast, wood hdle ..... per doz. 45@60c
Forged steel, wood hdle " $0.80
Solid steel ..... " 1 00
Giant ..... " 50

CLEANERS.

Drain.
Iwan's Adjustable 55%
Iwan's Stationary ..... 40&5%

Pot.
Wire ..... per doz. $0 75

Side-Walk.
Steel ..... per doz. $3 25
XLCR ..... 65&5%

CLEAVERS

Family.
Griffin, Inch 6 7 8
Per doz. $5.50 $5.75 $6.25
Royal ..... per doz. 2 25

Butchers.
Plumbs 25%

CLEVISES

Malleable ..... 5½c lb.

CLIPPERS.

Bolt ..... $1.90@4.75

CLIPS.

Axle ..... 65&5%

Damper.
Standard ..... per doz. 65c
Troy ..... " 38c

Hame ..... " 17

CLOTH

Emery.
Star 50%
B. & A. 50%

Hardware Wire—full rolls (100 ft.)
2 to 3 incl., Galv.—in full roll ... 2 75
4 and 5 ..... " .. 3 00
6 ..... " .. 3 25
7 and 8 ..... " .. 3 75

Screen Wire.
12 mesh, painted, per 100 sq. ft. . 1 35

COCKS AND FAUCETS.

Compression Plain Bibbs ... 60, 10&5%
Lever Bibb Cocks ..... 60, 10&5%
Compression Hose Bibbs .. 50—10&5%
Telegraph Faucets (new list) .. 50—5%
Racking Cocks (new list) ... 60, 10&5%
Compression Lock C'ks (new list) . 70%
Andrew's Brass Faucets 70%
Angle Plug Faucets, per doz. ... $0 85
Milk Can Faucets, per doz. . $2.60-4.20
Petroleum Faucets ..... 75&5%

COLLARS, STOVE PIPE.

Inches 5 6 7
Plain Tin . per gro. $1.90 $2.40 $3.50
Japanned Tin " 3.00 3.00 4.25
Lacquered Brass" 3.00 5.50 4.25

COMBS, CURRY.

Nos. ... 000 11 15 30 60 108
Per Doz. . $.37 .60 1.90 .90 1.15 .80
Nos. ... 299 320 390 532 620 1400
Per Doz $1.05 .85 1.35 1.20 .75 1.40

COMPASSES.

Carpenters' 60%
Pencil—Faber's ..... per doz. $1.00

COPPER—See Metals.

COPPERS.

Soldering.
1 lb. ..... per lb 30c
1½ lb. ..... 31c 2 lb. ... " 29c
3 lb and larger ..... " 26c

CORD.

Picture
White Wire (new list) ..... 85&10%

Sash.
Monarch Braided Flax ... per lb
Silver Lake, white, 7-32 in. "
Silver Lake, white, 8-32 in. "
Keystone ..... 8-32 in. " 29c

CORKSCREWS.

Humason & Beckley 33⅓%
Walker's 33⅓%
Williamson's Regular ..... 40&10%
Williamson's Forged Worm 50%

COTTERS, SPRING.

All sizes—new list ..... 90&30%

COUPLINGS, HOSE.

Brass ..... per doz. $1 00
Brass Plated ..... " 85

COVERS, WAGON—See Tents.

CRADLES, GRAIN.

Morgan's Grapevine .... per doz. $22 75

CRAYONS—See Chalk.

CROW BARS.

Inch or Wedge Point.....per lb 3½c

CUTTERS.

Glass.
Red Devil.....45%
Smith & Hemenway Co.....50%
Woodward.....40%

Meat.
Enterprise, Nos. 5, 10, 12, 22, 32 and 42.....25%
No. 202, list, $1.50 ea.....40&7½%

Pipe.
Stanwoods. No.... 1 2 3
Each.....$0.85 $1.50 $4.00

Slaw and Crout.
3-knife Crout.....per doz. $9 75
1-knife Slaw..... " 1 65
2-knife Slaw..... " 2 25
Washer..... " 7 75

DAMPERS, STOVE PIPE.

Jewel.....50&10%
American..... 50%

DIES AND STOCKS.

Discount.....40%
King's, Little Giant.....33⅓%

DIGGERS.

Post Hole.
Acme.....per doz. $9 25
Atlas..... " 9 00
Eureka..... " 7 50
Hercules..... " 10 25
Iwan's Split Handle.. " 7 50
Iwan's Perfection.... " 9 00
Iwan's Hercules pattern " 10 00
Ryan's..... " 17 00
See also Augers—Post Hole.
Dividers, Wing.....65&10%

DOOR CHECKS—See Door.

DOORS, SCREEN.

⅞ in. 4-panel, painted...per doz. $7 93
1⅛ in. 4-panel, painted... " 9 50
1⅛ in 3-panel, natural pine, fancy..... " 12 40

DOOR HANGERS—See Hangers.

DRILLS.

Bit Stock.....60&10%
Blacksmith's Twist.....60%
Breast.
Fray's No. 9.....each, $1 75
Millers Falls No. 12..... " 2 10

Hand.
Goodell's Automatic.
Nos..... 01 03 3 20
Per doz.. $7.75 $12 50 $12.50 $11.00
Goodell's Single Gear. per doz. 15 75
Millers' Falls " " " 12 75
" " Double " " 15 25

Reciprocating.
Goodell's.....per doz. 16 50

Bit Stock.
Standard List..60&5%@60%@10

DRIVERS, SCREW.

Standard.....65&10%
Lock Ferrule.....60%
Champion.....40&10%
Champion Pattern.....70%
Clark's Interchangeable.....30%
Edison.....60%
Reed's Lightning.....45&5%
Goodell's Spiral.....50, 10, 5&2½%
Yankee Ratchet 50%
" " Spiral.....50&10%
Smith & Hemenway Co.....40&5%

EAVES TROUGH, GALVANIZED.

Terms, 2% for cash. Factory shipments generally delivered.

See also conductor pipe and elbows.

EGG BEATERS—See Beaters.

ELBOWS.

Adjustable Stove.
Inches..... 5 6 7
Smooth, per doz...$0.75 $0.85 $1.20
Plan'd, " 1.80 2.00 2.65

Corrugated Conductor.
Discount.....75&10%

Corrugated Stove.
Inches..... 5 6 7
Smooth, per doz..$0.85 $1.00 $1.50
Pol'd, " .. 1.40 1.65 2.25
Plan'd, " .. 2.15 2.65 3.40

Four-Piece Stove.
Inches..... 5 6 7
Smooth, per doz..$0.60 $0.65 $0.95
Planished, " .. 1.40 1 70 2.30

EMERY CLOTH—See Cloth.

EMERY TURKISH.

Size .....5-lb. pkgs. ½ kegs. kegs.
No 60 to 150, per lb.. 6c 4c 4c
Flour..... " ... 5c 3c 3c

ENAMEL, IRON.

A-B Iron Enamel, 3 doz. case, ...per gro., 15 0
Peerless..... 1 2

EXTRACTORS, PIG.

See Forceps, Pig

FILES.

Bright Wire Screw—See Goods, B. W
Drifting Pick.....60, 10&5%
Hooks and—
Brass.....50&10%
Iron.....70%

FASTENERS, STORM SASH.

Schroeder's.....per doz. $0.85
Sensible..... " 1 15

FAUCETS—See Cocks.

FILES AND RASPS.

Delta.....70&10%

FLUE STOPPERS—See Stoppers.

FORCEPS, PIG.

Superior.....per doz. $4 7
Whisson's Imp..... " 5 2

FORKS.

Barley.
Steel New List.....65&10%
Wood, 4-tines, per doz.....$5 0
Coal, Coke, Cottonseed.....30%
Hay.
2-tine.....60%
3 " .....60&5%
4 " .....60&10%
Digging.....65&5%
Scoop.....30%
Leader.
3-tine.....60&5%
4 " .....60&5%

Manure.
4-tine 60%
Ore.....40%
Spading.

FRAMES.

Hack Saw.
Union.....per doz. $5 75
Jenning's adj..... " 7 50
Cast..... " 2 50

FREEZERS, ICE CREAM.

Arctic.
Qts..... 1 2 3 4 6
Each...$1.10 1.30 1.50 1.80 2.30
Qts..... 8 10 12 15
Each.....$2.95 3.80 4.50 5.30

Jack Frost.
Qts..... 2 3 4 6 8 10
Price .$1.60 1.90 2.20 2.80 3.60 4.65

GAUGES.

Butt and Rabbet.
Cream Pail.
Fairmont.....per doz. $3 75
Marking, Mortise, etc.....
.....50&10%
Saw.
Wire.
Disston's.....25%

GIMLETS.

Discount.....35@40%

GLASS, WINDOW.

Single.....90&20%
Double.....90&25%

GLASSES, LEVEL.

GLUE.

Bulk.
B Amber.....per lb. 12 c
A White..... " 15 c
H. S. Amber..... " 16½c
Liquid.
Army & Navy.....40%
Le Page's—
List "A".....37½%
List "B".....33⅓%
List "C".....25%

GOODS.

Bright Wire.....90%

GREASE, AXLE.

Wood Boxes.
Diamond.....per gro. $5 50
Frazer's..... 9 50
Hub Lightning..... 5 25
Paragon..... 6 75
Wood Pails.
Frazer's, 15 lb. 80c; 25 lb. $1.30 each
Hub Lightning, 15 lb. 55c; 25 lb 70c each.
Tin Cans.
Chamellene Graphite.
1 lb. per gross.....$9 50
3 lb. per gross.....25 00
5 lb. per gross.....37 00

GRIDDLES.

Soapstone.....33⅓%

GRINDSTONES.

Family.
Inches..... 7 8 9
Per doz.....$6.25 9.00 10.50
Loose.
Per ton.....$20 00@$21 00
Mounted.
Ball Bearing..... 1 2 3
Each.....$3.15 3.00 2.85
Common Bearing 1 2 3
Each.....$3.00 2.80 2.65

GUN WADS
(See Ammunition.)

HAFTS, AWL.

Brad.
Common.....per doz. $0 10
Peg.
Common..... " 22
Patent, plain top..... " 47
Patent, leather top... " 52
Sewing.
Common..... " 22
Patent..... " 52

HALTERS.

Jute Rope.....per doz. $1 10
Sisal Rope..... " 1 85
Web..... " 2 00
Leather, rope tie..... " 8 50
Leather, leather tie..... " 11 50

HAMMERS, HANDLED.

Blacksmiths' Hand.
Plumbs.....60&5%
Engineers'.
Plumbs.....60&5%
Farriers'.
Plumbs.....40&10%
Machinists'.
Plumbs.....60&5%
Nail.
Plumbs.....40&7½%
Quaker City.....per doz. $3 50
Cast..... " 1 15
Maydole's.....30&5%
Riveting.
Plumbs.....40&12½%
Shoe.
Cast.....per doz. $0 75
Tack.
All Iron.....per doz. $0 35
Pol'd Iron, Hickory hdl. " 50
Mall. Iron, Inlaid..... " 1 35
Magnetic..... 1 2 3
Per doz.....$0.70 .60 1.00
Magazine.. .....per doz. 4 75

HAMMERS, HEAVY.

Heavy Hammers and Sledges.
Under 5 lbs. .....30&5%
5 lbs. and over.....30&10%
Masons'.
Single and Double Face.....50&5%

HANDLES.

Auger.
Common Assorted....per doz. $0 35
Peck's Adjustable.... " 2 10
Ives' Adjustable.....per set, 1 35
Axe.....60%
Chisel.
Hickory, Tanged Firmer, Assorted, 18c; Large, 35c per doz.
Hickory, Socket Firmer, Assorted, 27c; Large, 30c per doz.
Applewood, Tanged, Firmer, Assorted, 29c; Large, 35c per doz.
Applewood, Socket, Firmer, Assorted .....per doz $0 24
Coal Pick.....50&10%
Drifting Pick.....50&10%
File, assorted, 18c; Large, 16c per doz.
Hammer.
Adze Eye.....per doz. $0 40
Blacksmiths'..... " 40c@70c
Machinists'..... " 45c@70c
Hatchet..... " 40
Hay and Manure Fork.....30%
Hoe and Rake.....30%
Plain.....per doz. $0 75
Varnished..... " 80
Screw Driver.
Assorted..... " 37
Large..... " 48
Shovel and Spade.....[illegible]%

HANGERS.

Barn Door.
Nansen.....60&10%
Matchless.....70&10%
Storm King.....60%
World's Best.....50%
Wagner's Adjustable.....70&10%
Warehouse.....60%
Conductor P.
Griffin.....70&10%
Iwan's Perfection.....50%
Eave Trough.
Baker's.....per gro. $2 30
Imperial.....20%
Wire.....33⅓%
Parlor Door.
Acme.....per set, $3 75
Ives' Improved..... " 2 50
Lane's Standard..... " 3 50
Lane's New Model.... " 3 10
Le Roy Noiseless..... " 4 00
Richards'.....40-10&5%

HASPS.

Hinge, Wrought.....40%
With Staples—See Staples.

HATCHETS.

Crown.....60-10&5%
Cast Claw.....per doz. $1 10@1 35
Cast Shingling.... " $0 85@1 10
Germantown.....50%

HAY KNIVES.

See Knives.

HAY RACK BRACKETS.

Wensleman's No. 1.....per doz. $9 00
Wensleman's No. 2..... " 9 00

HINGES.

Blind.
Clark's Gravity ... per doz. sets, 95c
Parker's.....65%
Shepherd's Noiseless, for Wood Casing.....per doz $1 00
Gate
Clark's..... 1 2 3
Hgs & Ltch. . doz. $2 50 2 90 4 00
Hinges only... " 1.90 2.20
Latches only . " .70 .75
Knuckle.....per doz prs. $4 00
Leed's..... " sets 4 75
Superior..... " prs. 9 00
Spring.
American.....20%
Chicago.....25&5%
Columbia Dbl. Acting....40&10&5%
Gem.....25%
Ideal Detachable.....per gro. $11
Matchless.....30%
New Idea.....per gro. $3 00
Oxford.....20%
Wrought Iron
New Lists .....
McKinney
Light Strap Hinges.....60%
Heavy Strap Hinges.....65%
Light T Hinges.....55%
Heavy T Hinges.....45%
Extra Heavy T Hinges.....60%
Screw Hook and Strap.
6 to 12 in.....per 100 lbs. $3 75
14 to 20 in..... " " 3 65
22 to 36 in..... " " 3.45
Screw Hook and Eye.
½ in.....per 100 lbs. $6 75
⅝ in..... " " 7 75
¾ in..... " " 9 75

HOES

Garden .....70&10%
Grub.
Extra.....70%
Hazel.....per doz. $5 00
Ladies' and Boys'.....75%
Mortar.....75&10%
Planter's Eye.....62½%
Weed.....75&15%

HOLLOW WARE—See Ware

HOOKS.

And Eyes.
Brass.....50&10%
Iron.....65&10%
Awning.....per gro. $1 00
Belt.
Brown's.....70&5%
Jones'.....65&5%
Bench.
See Shops, Bench.

Box.
Inch..... 6 8 10 12
Per doz.....$1.35 1.65 1.75 2.30
Humason & Beckley's. . per doz. $2 50
(See Goods, Bright Wire.)
Bush.
Common Axe Handle. per doz. $7 00
Chain.
Inch... .. 1/4 & 5/16 3/8 7/16 1/2
Per 100. . .$7 00-8.10 9.75 11.30 12.60
Clothes Lines.
Japanned ..... per doz 22c@24c
Galvanized.. ..... " 40c
Coat and Hat
Cast Iron . . . . per gro. 72c@$1 50
Gem Wire.....70%
Conductor.
Malleable.....25%
Wrought.....20%
Corn.
Common, unpolished, per doz. $1 50
Little Giant..... " 3 25
Gate.
See Goods, Bright Wire.
Grass.
Common. Nos..... 2 3 1
Per doz.....$1.50 1.60 1.70
German.....per doz. 1 75
Little Giant..... " 2 75
Hammock.
With plate.....per doz. 50
With screw..... " 45
Lambrequin, or Drapery, per gro. .21c
Picture.....50% @50&10%
Potato and Manure.....70&12½%
Screw.
Brass.....80&5%
(See Goods, Bright Wire.)
Seat Spring .....per lb. 5½c

HOOPS, TUB.

Elastic . . . per case of 2 doz.... $1 50

HOSE, GARDEN.

				Coupled, per ft.
Heron, 3 ply-¾" guar. press				55 lbs. 7½c
Crane. .	"	"	"	75 " 8½c
Falcon	"	"	"	95 " 9½c
Eagle	"	"	"	120 " 10½c
Condor	"	"	"	150 " 11½c
High Test	"	"	"	200 " 12½c

COTTON COV. RUBBER HOSE.

High Grade-¾"-guar. press.				400 lbs. 11½
Special	"	"	"	300 " 9½c
Leader	"	"	"	100 " 7½c

HUSKERS.

Boss.
Nos..... B BB B 200
Per doz.....$2.00 2.00 1.75 .90
Nos..... L PP P K
Per gro.....$5.40 6.00 6.00 10.50
Nos..... 2000 3000 O
Per gro.....$3.50 9.00 24.00
Nos..... 60 50 64 66
Per doz.....$2.15 2.15 .85 1.45
Brinkerhoff's.
Per gro.....$14 40

IRON.

See Metals.—First column.

IRONS.

Curling.
X.....per doz. $0 40
Y..... " 50
Z..... " 58
Jewel..... " 85
Imperial..... " 1 00
Pinking..... " 70
Plane.
Wood Bench.....20&5%
Sad.
Charcoal.....per doz.$11 00
Common, polished, per 100 lb. 4 50
Common, nickel plated, 5 25
Chinese Polishing.....per doz. 7 40
Laundry, No. 1..... " 5 75
Laundry, No. 2..... " 6 25
Mrs. Pott's,
No. 50 J, Enterprise, per set 93
No. 55 J, " " 90
No. 50 T, " " 1 00
No. 55 T, " " 96
Tailors' Sad.....per lb. 5½
Tailors' Geese..... " 5½
Tuyere.
Single Duck Nest.....per doz $5 25
Double Duck Nest . . " 6 25
Sutton.....each.... 2 60

JACKS.

Locomotive.....70%
Wagon.
Oliver,
Nos..... 0 00
Each.....$0.60 $0.80

Standard.
Nos..... 1 2
Each.....$0.60 1.00
Wilcox.
Nos..... 1 2 3
Each..... $0.85 1.20 2.90

KETTLES.

Brass.....15%
Cauldron.....40&5%
Copper..... per lb., 27c
Maslin.....65%
Sugar.....50%

KNIVES.

Boat Topping.
Clyde, 9-in. Scimiter Blade, doz.$3 85
California..... 3 40
Cooper's Hoop.....15%
Corn.
Clipper.....per doz. $1 75
Disston's..... " 2 75
Earle's..... " 3 00
Woodford..... " 3 25
Drawing.
Standard.....70%
Adjustable.....15%
Barton's Carpenters' 10%
Folding Handle.....25&5%
Hay.
American, Sickle Edge...doz. $10 50
Canton, Sickle Edge..... " 3 25
Heath's..... " 3 00
Iwan's, Sickle Edge..... " 9 50
Iwan's, Impv'd Serrated . " 10 00
Lightn'g, Holt's Genuine. " 6 50
Lightning Pattern..... " 6 00
Wadsworth's Sp'r Point.. " 8 50
Hedge.
Challenge.....per doz. $6 00
Disston's..... " 3 75
Mincing.
Common, Single..... " 40
Common, Double..... " 50
Stretter, 4-Blade..... " 1 30
Stretter, 6-Blade..... " 2 00
Putty.
Common.....per doz. $0 60@1 00
Lander's..... " 1 40@1 75
Scraping.
Beech Handle..... 75@1 00
Lander's..... 5 25@6 00

KNOBS.

Door.
Mineral.....per doz. $0 80
Porcelain..... " 90
Jet..... " 90

LADDERS.

Common Long.
Per ft.....9c@14c
Extension.
Per ft.....14c
Step.
Common, per ft.....7½c
Common, with Shelf, add 10c.
Keystone..... .....15c
Triumph, per ft.....20c

LANTERNS.

Bull's Eye Police.
3 -in. Flash Light....per doz. $6 00
2½-in. Regular..... " 4 90
3 -in. Regular..... " 5 50
Tubular.
Dietz & Hanes' . . ..net prices.

LEADERS, CATTLE.

Nos..... 1 2 3
Per doz..... $0 55 .70 2.75

LEATHER, LACE.

Cut.....33⅓%
Sides.
Ex. Quality ..... per sq. ft., 27

LEATHERS, PUMP.

Valve and Plunger.....10%

LIFTERS.

Stove Cover.
Coppered.....per gro. $ 75@3 65
Ideal..... " 5 50
Alaska, Coppered " 4 00
Alaska, Nickeled. " 5 00
Transom.
Payson's.....80%

LINES.

Chalk.
Twisted in 20-ft. hanks.
Nos.... 4 6 7 8 9
Gross...$1.50 2 00 2 25 2 50 3 00
Twisted in 50-ft. balls.
Nos..... 1 2 3 4
Per doz.....25c 30c 35c 41c
Braided in 20-ft. hanks.
Nos..... 0 1 2 3
Per doz.....22c 25c 31c 35c
Mansons', in 100-ft. hanks...doz. 80c
Clothes.
60-ft. Jute.....per doz. $0 85
72-ft. Jute..... " 1 15
60-ft. Sisal..... " 1 40
72-ft. Sisal..... " 2 15
50-ft. Cotton..... " 1 15
50-ft. Braided Cotton. " 27

LINING, STOVE.

n Bricks .....per crate. 62c

MACHINES.

Boring.		Without Augers	With Augers
Angular.....per doz.		3 00	4 40
Upright.....	"	2 60	4 00
Leather Riveting.			
Chicago, Pomeroy....	per doz.		$9 00
Excelsior.....	"		2 00
Handy.....	"		2 00
Little Giant.....	"		3 00
Pony, Pomeroy.....	"		7 20
Vashing.			
Winner.....per doz.			54 00
Keystone.....	"		54 00
U. S. Steel.....	"		60 00
Advance, f.o.b.Chicago	"		24 50

MAIL BOXES.

See Boxes.

MALLETS.

Carpenters'.
Fibre Head, Small....per doz. $5 00
" " Medium. " 5 75
" " Large... " 7 00
Round Hickory..... " 2 25
" Lignumvitæ... " 4 00
Square Hickory..... " 2 25
" Lignumvitæ... " 4 50
Tinners'.
Applewood..... " 1 70
Hickory..... " 1.00@1 50
Hickory Sheet Iron... " 1 50

MATS.

Door
National Rigid.....50, 10&5%
Acme Steel Flexible.....33⅓%
Stove.
No. 2.....per gro. $3 25
No. 1..... " 3 50
No. 1 Asbestos Toasters, or wire-covered Stove Mats, with handle.....per doz. 1 10
No. 2 Asbestos Toasters, with ring.....per doz. 00

MATTOCKS.

Plumbs.....65&10%
Extra.....60%

MAULS.

Iron, lbs.....	10	13	16	18
Per doz....	$4.00	4.50	5.25	5.60
Wood face, lbs.....	10	12	14	
Per doz.....	$5.00	5.50	6.00	

Wood Choppers'.
Lake Super'r & Oregon Pat. 75&10%

MEASURES.

	½ pk.	1 pk.	bu
Galvanized, per doz.	$2.25	3.00	3.85
Japanned. "	1.75	2.45	3.15

MICA.

First Quality.....40&5%
Second Quality.....50&5%

MILLS, COFFEE.

Enterprise.....25%
Parker.....50&5%
Arcade.....40-12½&2½%

MITRE BOXES.

See Boxes.

MOPS.

Erie.....per doz. $3 15
Handled Cotton.

Pounds.....	¾	1	1¼	2
Per dozen....	$2.00	2.35	2.65	3.25

MOWERS, LAWN.

Gladiator—B. B.			
Inches.....	16	18	20
Each.....	6.50	7.25	8.00
King Universal—B. B.			
Each.....	5.25	5.75	6.00
Inches.....	14	16	18
Big Giant.....	3.50	3.90	4.25
Little Giant	2.50	2.65	2.75

NAILS.

Cut Steel .....rates, $2 50
Cut Iron..... 2 60
Wire.
Small Lots..... $2 25
Carload Lots..... 2 15
Cement Coated..... 2 30
Horse Shoe.
Ausable.....55&5%
Capewell.....15%
Perfect.....55&5%
Putnam.....20&5%
Star.....35&5%
Clover Leaf .....per lb., net, 10½c
Picture.
Brass Heads.....25%
Brads.....85%
Furniture.....15%

NAIL PULLERS.

See Pullers.

NAIL SETS.

See Sets.

NETTING, POULTRY.

Galvanized beforeweaving .80,10&2½%
Galvanized after weaving.....80&7½%
Cut Pieces.....65&5%

NIPPERS.

End Cutting.
Stubb's Pattern. Inches 5½ 6
Per dozen..... $4.00 4.25
End and Diagonal Cutting.
Swedish Side.....75%
Utica Drop Forge & Tool Co....60%
Hoof.
Heller's.....40&10%
V. & B.....55&5%

NOZZLES.

Hose.
Genuine Gem.....per doz. $3 94
Magic..... " 3 04
Mystic..... " 3 04

NUTS, HOT PRESSED.

Square Blank.
In ½ 9/16 ⅝ ¾ ⅞ 1
lb 9½c 8c 6½c 5½c 5½c 5c 4½c
Square Tapped.
In. ½ 9/16 ⅝ ¾ ⅞ 1
lb. 12½c 10½c 8c 7½c 6½c 6½c 6c
For 5-lb. boxes add ½c per lb. to above prices.

OILERS.

Chase Pattern.
Brass and Copper.....60%
Zinc.....60%
Engineers'.
Cannon.....55%
Tin . . . .per doz. $2 00@$2 25
Machine.
Common.....per doz. $0 50
Copper Plated Steel... " 1 00
Malleable Iron.....60, 10&5%
Japanned.....65@75c

OPENERS.

Box.
Inches..... 10 12 14
Flat.....per doz. $2.85 3.00 4.15
Round.... " 2.10 2.25 2.75
Can.
Delmonico .....per doz $1 30
Never Slip..... " 65
Crate.
V. & B..... " 5 75

OUTFITS, COBBLING.

Combination.....per doz. 11 00
Economy..... " 4 05
Family..... " 9 75

PADLOCKS.

Standard Wrought.....75&5%
Champion.....50%
Eureka.....40, 10&5%
Yale.....60&5%

PAILS.

Cream.
14-qt , without gauge, per doz. $2 50
20-qt., " " " 3 00
20-qt., with gauge.... " 3 50
Sap.
10-qt., Galvanized, per 100....$13 00
12-qt., " " 14 50
14-qt., " " 16 25
16-qt., " " 17 75
10-qt.,IC Tin..... " 10 25
12-qt., " .... " 11 75
14-qt., " .... " 13 00
10-qt.,IX Tin.... " 12 75
12-qt., " .... " 16 00
14-qt., " .... " 17 00
Stock.
Galv'd, qts. 14 16 18 20
Per doz..... $3.75 4.00 4.75 5.25
Water.
Galvanized... qts. 10 12 14
Per doz..... $1.95 2.20 2.45
Wood.
Cable, 2-Hoop.....per doz. $1 70
Cable, 3-Hoop..... " 1 90
Cedar, 3-Hoop..... " 2 85
Standard, 2-Hoop.... " 1 60
Standard, 3-Hoop.... " 1 80

PANS.

Dripping.....60&5%
Fry
Common .....75&10%
Acme 70%
Roasting.
Paxton,
Nos..... 1 2 3 4
Per doz.... $4.75 5.75 6.50 7.50
Neverburn . . 4.00 4.50 5.50 6.00
Savory, No. 200.....per doz. $8.00

PAPER.

Building.
Plain.....per 100 lbs. $1 25
Tarred..... " 1 35
Tarred Felt..... " 1 65
No. 20, Red Rosin....per roll, 40
No. 30, Red Rosin.... 55
Sand and Emery.
Star ..... low list, 50%
B. & A.....50%
Wrapping.
Drab Fiber.....per lb. $0 00
Rag..... 6 00

PARERS.

Apple.
Bay State.....per doz. $13 00
Turntable..... " 0 00
White Mountain..... " 5 00
Reading..... " 7 00
Potato.
Goodsell's Saratoga, 10½ in., doz. 6 50
Goodsell's Saratoga, 5 in., doz. 5 50

PICKS.

Adze Eye Ore.....70%
Drifting and Poll Picks.....70%
Plumbs, Railroad.....70%
Surface.....70%

PINCERS.

Carpenters', cast steel.

Inches	6	8	10	12
Per doz.	$2.00	2.60	2.95	3.75

Blacksmiths'.....45%
Heller's.....40%

PINS.

Clothes.
Common.....per box of 5 gro $0 52
Hoyt's..... " " 31
U. S..... " " 70
Picket.
Fluted, 15-in.....per doz. $0 70
Fluted, 21-in..... " 1 60
Spiral..... " 1 90

PIPE.

Conductor.

	Gal. Steel	Charcoal
L. C. L. to Dealers:—		
Eastern	70&10%	50&10&2½%
Pittsburgh	75&10&5%	60%
Central	75&10%	60%
Northwestern	75&7½%	60%
Western	70&12½%	50&12½%
Tennessee	70&10%	50&12½%
Southern	70%	50&12½%
Southwestern	70%	50&5%

Terms 60 days; 2% Cash 10 days.
Factory shipments generally delivered.

Lead.
Full coils .....per lb. 7½c
Cut coils..... " 7½c
Stove

Acme—Inches	5	6	7
Smooth, per jt.	8½c	9½c	10½c
Planished, "	32 c	33 c	43 c
Peerless—Smooth,	7½c	8 c	9½c
Polished	14½c	15½c	18 c
Planished	28 c	31 c	35½c
Made-up—Inches	5	6	7
Smooth	7½c	8 c	9½c

7 to 6 in. Smooth Tapers, pr jt...13c
6 in. Smooth T's..... " 27c
7 to 6 in. Planished Tapers.....45c

Yale Patent Lock Pipe—Stove.

	5"	6"	7"	7"to8"
	Cents			
Battle Axe Blue	7	7½	9½	10½
Can't Slip "	7½	8½	10	11
Peerless "	7½	8½	10	11
Duplex "	10	11	13	14
Yale, Rus. Fin	15	16	17	18
Duplex Planished	29	31	37	38
Galvano, Gal	15	16	17	18

If wanted made up, add per joint or grooved, 1c; riveted, 1½c. Grating made-up pipe extra.

Wrought Iron Gas Pipe.
⅛@½-in., black.....discount, 60%
⅛@½-in., black..... " 60,10&5%
¾-in. to 6-in., black... " 70%
7-in. to 12-in., black... " 62½%
⅛@½-in., galvanized.... " 42%
⅛@½-in., galvanized.... " 50%
¾-in. to 6-in., galvan'd " 57½%
7-in. to 12-in., galvan'd " 45%

PLANES.

Sargent Iron Bench.....60%
Stanley Iron Bench.....25&5%

PLATES, TIN.

See Metals in Column 1.

PLIERS.

Giant, Button's—80% off list.
Cutting
Bernard's.....30%
Lodi.....50%
Upper End and Diagonal Cutting
Swedish Side.....70%
Utica Drop Forge & Tool Co....60%
Fencing.
Black Bull.....per doz. $8 25
Farmers' Choice.....per doz. $8 00
Russell's..... " 8 25
Flat and Round Nose.
Bernard's.....30%
German.....65%
Lodi.....50%
Paragon.....50%

Gas.—Inches	7	8	10	12
Per doz	$3.00	3.50	4.50	5.50

Tinners'.
Hollow.....40%
Solid.....each, 5½c

PLUMBS AND LEVELS

Common.....60&10&10%
Cook's.....40%
Davis' Iron.....25%
Davis' Inclinometer.....15%

POINTS

Drive Well Points.....75&5%

POKERS, STOVE.

Wr't Steel, str't or bent, per doz. $0 55
Wr't Steel, wood hand'ls " 80
Nickel Plated, coil hand'ls " 65

POKES, ANIMAL.

Cracker Jack, wr't steel, per doz. $4 50

POLISH.

Metal.
A-B Oil Metal Polish, 4-oz. bottles, 3 doz. case, per gr. $9 00
1-gal. can..... 90
White Silk, half pints, per doz, $2 00
White Silk, 6-oz. cans, per doz. 1 00
Shoe.
M. C. D.....per doz.....36c@50c
F. C. O..... " 40c
T M..... .55c@$1 75
Imperial.....per gro..... 5 00
Stove.
A-B Polishes.
Liquid Stove Polish, 3 doz. in case.....$2 25
6 " " .....gr., 9 00
Fireproof Stove Polish, 3 and 6 doz. in case.....gr., 12 00
Liquid Waterproof Stove Polish, 10-oz. cans, per gro., 12 00
Oil Paste Polish.
6-oz. cans, 3 doz. case..... 2 25
1-lb. " 3 " " 3 75
5-lb. " per can..... 50
Dry Powdered Stove Polish.
5-lb. box..... 75
100-lb. bbls.....per lb. 12
Powder Polish, 3 doz. 6 do. 12 doz. $2.25 $4.50 $9 00
Water Paste Stove Polish, ½-lb. boxes, 3 doz. case..per gro., 12 00
Black Eagle, 1-lb. cans, pr gr. $15 00
Black Silk—
5-lb. pail..... $0 70
Paste, 5-oz. cans....per doz. 75
Paste, ½-lb. cans.... " 1 05
Liquid, ½-pt. cans... " 1 05
Liquid, 5-oz. cans... " 75
Black Jack, ½-lb. cans. " 2 25
Dixon's Carb. of Iron. " 5 75
Nickel Plate..... " 4 50

POPPERS, CORN.

Round or Square, 1-qt. per doz. $1 05
Square, 1½-qt..... " 1 15
Square, 2-qt..... " 1 35
2-qt..... " 3 75

POTS, FIRE.

Clayton & Lambert's, each, $4 75@6 25
Gate City.....each, 6 25
Gem.....each, $6 75@8 50

POWDER.

See Ammunition.

PRESSES, FRUIT AND JELLY.

Enterprise Manufacturing Co.....25%

PRIMERS

See Ammunition.

PRUNERS.

Disston's Pole.....per doz. $6 50
Henry's Improved..... " 75&10%
Water's Improved..... " 30%

PULLERS.

Cork.
Daisy.....each, $3 10
Phœnix..... " 1 40
Quick and Easy..... " 2 70
Nail.
Giant.....per doz. 10 50
Giant Pattern..... " 6 00
Jumbo..... " 9 00
Tack—Giant..... " 40

PULLEYS.

Awning—Jap'd.....60%
Clothes Line.....50&10%
Hay Fork.
Iron Wheel, 5-in.....per doz. $1 75
Wood Wheel, 6-in.... " 1 75
Wood Wheel, 6-in. pass knot, ...per doz. 2 10
Hot House—Jap'd.....50&10%
Screw—Jap'd.....60%
Side—Jap'd.....50&10%
Sash.
Common.....per doz. $0 10
Common-Sense, 2-in.. " 20
Empire Pattern, 2-in.. " 20
Ideal..... " 20
Steel..... " 25

PUMPS.

Pitcher Spout.

Nos.	1	2	3	4
Each	$1.00	1.15	1.30	1.70

Spray.
Blizzard.....per doz. $14 50
Cyclone, tin..... " 3 40
Cyclone, copper..... " 6 75
Daisy..... " 9 00
Little Giant.....each,... 2 25

PUNCHES.

Conductors'.
No. 22.....per doz $2 25
Machine.....per lb 10
Saddlers'.
Common.....per doz 60c@70c
Good..... " 72c@84c

PUTTY.

In Bladders.
Strictly pure.....per 100 lbs. 2 35

RAIL.

Barn Door.
Matchless, 1-in..... 3
Matchless, 1½-in..... 3½
Storm King..... 4
Sliding Door.
Painted steel.....per ft. 4½
Bronzed wrought iron...per ft. 8½

RAKES.

Coal or *Wood*.....per doz. $5 25
Garden.
Steel.....70%
Steel, bow.....70%
Malleable iron, heavy.....60&10%
Hay.
Wood.....$1 50@$2 00
Lawn—Wood.
XXX.....per doz. $3 00
Automatic..... " 5 25
Lawn Queen..... " 2
Jumbo, 36 teeth..... " 5

RASPS—See Files.

RAZORS.

Bo-ras-ic.....50%
Red Devil.....50%
Tree Brand.....50%

REGISTERS.

(All Sizes)

Japanned, Bronzed and Plated...70%
White Porcelain Enameled...50&10%
Solid Brass and Bronze Metal....40%
Single Valve (Baseboard and Sidewall).....70&10%

REGISTER FACES

Japanned, Bronzed and Plated
4x6 to 14x14.....70%
14x14 to 38x42.....75&10%
Heavy Round Gratings.....75&10%
White Porcelain Enameled...50&10%
Solid Brass or Bronze Metal.....40%

RINGS.

Bull.
Copper.....2½ in. 3in
Per doz.....$1 10 $1 4
Rea's Improved Self-Piercing copper, pr doz 2 00 ...
Steel, per doz..... 85 9
Nickel plated..... 1 35 ...
and Ringers—Hog.
Blair's Rings.....per doz. $0 5
Blair's Ringers..... " 7
Brown's Rings..... 5
Brown's Ringers..... " 8
Champion Ringers.... " 6
Hill's Ringers..... " 7
Hill's Ring, boxes.... " 4
Major Rings..... " 6
Perfect Ringers..... " 9
Wolverine Rings..... " 1 4
Wolverine Ringers.... " 8
Fruit Jar.
White.....per lb.....30c
Key.
Split, round.....per doz. $0 17
Split, square..... " 25
Ball, round..... " 25

RIVETS.

and Burrs.
Copper Belt.....40%
Coppered Iron.....60&10&5%
Tinners'.....60&10%
Hame.....per lb. $0 10
Slotted Clinch per doz 40c@45c
Tubular
Nos 1 and 2 assorted sizes, doz, 45c

RIVET SETS

See Sets.

ROPE.

Cotton.
¼, 5-16 in. Com on reels. .per lb. 11½c
¼, 5-16 in Com. in coils. . " 12 c
¼, 5-16 Imperial in coils.. " 21 c
Sisal.
1st Quality.....12 c
Hardware Grade, rates, per lb...10 c
Pure Manila.
1st quality.....per lb. 15½c
Hardware Grade, rates... " 14½c

RULES.

Boxwood.....50&10%
Ivory.....

SASH WEIGHTS.

See Weights.

SAWS.

Back.
Disston's.....25%
Jackson's.....25%
Butchers'.
Disston's.....30%
Circular.
Disston's.....50%
Hiles'.....50&10%
Compass.
Common.....per doz $1 35@1 60
Disston's.....%25
Cross-Cut
Disston's.....40%
Dehorning.
Disston's.....per doz. $5 75
Hack.
Disston's.....25%
Keystone.....30%
Hand and Rip.
Brown's.....30%
Disston's No. 7.....30%
Disston's Nos. 8, D8, 12, 76, 112, D100, and 120 (new list).....25%
Keystone.....30%
Enterprise, hand.....per doz. $5 00
Our Saw, hand..... " 4 00
Our Saw, rip..... " 4 50
Keyhole—Disston's.....25%
Kitchen.
Sterling.....25%
One Man.....50%
Panel
Brown's.....30%
Disston's No. 7.....30%
Disston's No. D100.....25%
Pruning.
Brown's.....25%
Disston's.....25%
Wood
Common.....per doz $4 50
Clover Leaf..... " 6 00

SAW BUCKS—See Bucks.

SAW SETS—See Sets.

SAW TOOLS—See Tools.

SAW FRAMES.

Common, plain.....per doz. $1 25
Common, painted..... " 1 70

SCALES.

Counter.
Pelouze.....40&10%
Platform.
Osgood.....50%

SCOOPS.

Grain.
½-bu. "Hercules".....per doz. 13 70
1-bu. "Hercules"..... " 15 00

SCRAPERS.

Box.
Triangular.....per doz. $4 00
Cabinet.
Cast Steel.....per doz., 60c@75c
Road.

Cubic ft.	7	5	3
Without run's, ea.	$4.00	3.75	3.50
With runners, ea.	4.25	4.00	3.75

SCREWS.

Bench.

Iron, in.	1	1½	1¾
	$3.50	4.00	4.75

Wood, white maple...per doz. $3 50
Hand—Wood.....10%
Hand Rail.....80&10%
Jack.....70&10&5%
Lag or Coach—all sizes, gimlet pointed.....75&5%
Saw—Centennial.

Nos.	1	2	3	4	5	6
Per doz.	18c	20c	26c	30c	23c	25c

Wood.
F. H. Bright.....87½&5%
R. H. Blued.....85%
F. H. Jap'd.....82½%
F. H. Brass.....85%
R. H. Brass.....80%
R. H. Nickel Plated.....75-10%

SCYTHES.

Be Ve Be, grass.....per doz. $8 00
Clipper, grass..... " 8 25
Clover Leaf Dutchman. " 7 50
Honest Dutchman..... " 7 50
Be Ve Be..... " 7 50

SHAVING SETS.

Smith & Hemenway.....60%

SETS.

Nail.
Round, common.....per doz. $0 33
Square, common..... " 42
Octagon, common.... " 33
No. 5, square..... " 75
Cup point, knurled.... " 75
Rivet.
Farmers'.....per doz. $1 20
Tinners'.....50&10%
Saw.
Aiken's Pattern.....per doz $3 50
Common Lever..... " 1 20
Disston's Monarch.... " 6 50
Disston's X Cut ..... " 12 00
German..... " 1 05
Leach's..... " 80
Nash's Hand..... " 3 15
Nash's X Cut..... " 4 20
Stillman's Lever..... " 1 30
Stillman's X Cut..... " 2 50

SHARPENERS, SKATE.

Diamond..... per doz $1 60
Smith & Hemenway 20%

SHAVES, SPOKE

Iron.....per doz $1 10@1 85
Wood ..... " 2 75@4 75
Bailey's .....50&5%
Goodell's 15%

SHEARS

Pruning
Buckeye, No. 1.....per doz $5 75
Buckeye, No. 2..... " 7 40
California Pat., 9-in.. " 3 20
Cailfornia Pat., 10-in.. " 4 00
Draw Cut, No. 3..... " 13 75
Draw Cut, No. 4..... " 16 50
Henry's Pat. 0 61 14 012
Per dos.....$1.40 2.10 2.90 2.80
Star.....per doz $4 00
Sheep—No BBA.
Inches..... 6 6½ 7
Reg. Grip.....$11.25 11.50 12.00
Nar. Grip..doz.... 11.00 11.25 12.25
Tinners'—See Snips.

SHEAVES, SLIDING DOOR.

Common.
Inches..... 3 4 5
Per set..... $0.34 .42 .70
Hatfield's.
Per set..... $0.75 1.00 1.00

SHELLS—See Ammunition.

SHELLERS, CORN.

Union.....per doz. $6 75

SHIELDS.

Expansion Bolt Shields.....50&10%

SHOES.

Conductor.....60&10%

SHOT—See Ammunition.

SHOVELS AND SPADES

Coal
No 2 Woodford.....per doz. $5 50
No. 182..... " 6 00
Ames' new list .....Discount, 12½%
Per doz.
Neverbreak, hollow bck, blk. $15 75
National.... " " " 14 75
Buckeye.... " " " 10 00
Mohawk.... " " " 9 00
Drain.
Iwan's Perfection.....50%
Railroad, etc.
Black Diamond.....per doz. $1 50
Crescent..... " 5 75
Keystone..... " 8 75
Star..... " 4 75
Vaterland..... " 9 50
Hollow Back..... " 4 75
Ames, new list .....Discount, 12½%
Snow.
Per doz.....$1.65@$0.00
Alaska Steel.
D Handle.....per doz. $3 30
Long Handle..... 3 60

SINKS.

Cast Iron.
Painted.....50&10%
Enameled, White.....50&10%
Wrought Steel.
Painted, new list.....40-10&5%

SLEDGES—See Hammers.

SNAPS, HARNESS.

Champion.....33⅓%
German Pattern.....30&5%
Judd's Pattern.....50%

SNATHS.

Double Ring, Bush.....per doz. $6 00
Patent Loop, Bush..... " 5 75
Patent Loop, Grass..... " 5 50

SNIPS, TINNERS'.

Clover Leaf.....40&10%
National.....40&10%

SOLDER—See Metals.

SPRINGS, DOOR.

Perfect.
Nos..... 1 2 3 4
Per dos.....30c 35c 40c 54c
Reliance.
Per dos ...light, $1.25; heavy, $2 50
Star.
Per dos ....light, 90c; heavy, $1 35
Torrey's.....per dos. $1 35
Warner's No..... 11 13
Per dos..... 75c $1 35

SQUARES.

Steel and Iron.....70&10%
(Add for bluing, $2.50 per doz., net.)
Mitre.
Try.
Try and Bevel.
Try and Miter.
Fox's.....per doz. $5 75
Winterbottom's.....70%

SQUEEZERS, LEMON.

Common Wood.....per doz. $0 70
Porcelain Lined, Wood. " 1 25
Boss, malleable iron.... " 1 20
Iron Frame, porc'n bowl " 1 90
Iron Frame, glass bowl . " 2 35
Little Giant, tin'd iron . " 4 00
Drum, japanned..... " 3 60
Drum, nickel plated ... " 4 50

STAPLES

Blind.
Barbed.....per lb . .9¼@9½c
Butter Tub..... " .....8 @8½c
Fence—less than carload.
Polished.....per 100 lbs. $2 30
Galvanized..... " 2 60
Netting.
Galvanized.....per 100 lbs. 4 00
Wrought.
Wrought Staples, Hasps and Staples, Hasps, Hooks and Staples, and Hooks and Staples.....80-10&10%
Extra heavy.....75&10%

STEELYARD.

Discount 25%.

STONES.

Axe.
Hindostan .....per lb 5½@7 c
More Grit..... " 9½c
Washita ..... " 17 c
Emery.....60%@00&5%
Oil—Mounted.
Arkansas Hard.....per doz.$23 00
Arkansas Soft..... " 15 50
Hindostan .....per lb 6½@6½
Oil—Unmounted.
Arkansas Hard.....per lb $2 05
Arkansas Soft ..... " 1 10
Lily White..... " 45
Queer Creek..... " 15
Ouachita..... " 38
Washita..... " 26
Sythe.
Black Diamond.....per gro. $8 00
Crescent..... " 4 25
Gem Corundum..... " 7 50
Green Mountain..... " 4 50
La Moille ..... " 7 00
Quinnebog..... " 5 00
Red End ..... " 3 75

STOPS, BENCH.

Hotchkiss'.....per doz. $3 50
Stearns'..... " 4 75

STOPPERS, FLUE.

Common.....per doz. $0 40
Crown..... " 45
Gem, flat, painted..... " 85
Gem, cor'd, decorated... " 70
Kirch's..... " 90
Perfect..... " 70@85
Skinner's Commo Sense " 80

STOVE PIPE—See Pipe.

STOVE BOARDS—See Boards

STOVE POLISH—See Polish.

STRAPS.

Scoop.....per doz prs., $1 85
Skate..... " " 60@70c

STRETCHERS.

Carpet.
Bullard's.....per doz. $3 90
Excelsior..... " 5 25
Malleable Iron..... " 70
Perfection..... " 6 30
King..... " 4 50
Wire.
N. S. Elwood's.....per doz. $6 00
O. S. Elwood's..... " 6 00
Little Giant..... " 5 75
Safety..... " 10 00
Star Lever..... " 6 25
Canton Tackle Block. " 9 50
Warner's ..... " 6 25

SWIVELS.

Malleable Iron.....per lb. $0 70
Wrought Steel.....per gro. 4 50

TACKS.

American Cut.....90&15%
American Wire.....85&20%
Bill Posters Cut.....90&20%
Blued Carpet.....90&10%
Tinned Carpet.....90&10%
Gimp.....90&10%
Upholsters' Cut.....90&20%
Upholsters' Wire.....90&10%
Double Pointed.....90%
Copper.....per lb. 32c
Canvas Nails.....75&5%
Clout Nails.....75&10%
Hungarian Nails.....80%

TAPES, MEASURING.

Asses' Skin.....40&10%
Bend Leather.....20%
Patent Leather.....20%
Lufkin's Steel.....35%
Lufkin's Metallic.....30%

TEE BEVELS—See Bevels.

THERMOMETERS.

Tin Case.....per doz. 80c@$1 25
Wood Back..... " $2.00@12 00
Glass..... " 12 00

TIES.

Bale.
Single Loop.....80&5%
All other kinds.....70%
Cow—See "Chains."

TOOLS, SAW.

Disston's Universal.....40%
Miniature.
Smith & Hemenway.....25%

TRAPS.

Fly.
Ballon.....per doz. $1 25
Harper's..... " 1 35
Game.
Newhouse.....40&10%
New Victor.....70&10%
Mole.
Reddick's.....per doz. $6 00
Mouse and Rat.
Wood Choker ..per doz. holes $0 13
Tin Choker .... " " 75
Delusion.....per doz. 1 15
Marty Rat..... " 6 25
Marty Rat Imitation. " 3 50
Marty Mouse..... " 3 00
Marty Mouse Imitation " 2 00
Hold-em, wire rat.... " 3 75

TROWELS.

Brick.
Clover Leaf.....30%
Brade's.....15&5%
Disston's.....30%
Rose's.....20%
Plasterers'.
Clover Leaf.....40%
Disston's.....25%
W. & McP.....25%

TRUCKS.

Bag ..... each $2 75
Handy..... " 1 85
Warehouse.....50&10%
No..... 1 2 3
Half Ironed $3.00 3.85 5.50
Full Ironed..... 3.45 4.50 6.45

TUBS, WASH

Standard, Wood. Ex.
Nos..... 3 2 1 large
Per doz.....$5.00 6.00 7.00 9.50
Dowell.
Per doz..... 5.35 6.35 7.00 9.50
Cedar.
Per doz..... 6.10 7.10 7.90 10.80
Indurated.
Per doz..... 8.55 9.45 10.80 13.50
Galvanized.
No..... 1 2 3
Per doz.....$6.00 6.75 7.75

TWINE.

Per lb.
3-ply Cotton Wrapping 25c
4 " " " 25c
" " Extra Wrapping.....27c
4 " " " Hvy. Wrapping 25c
4 " " Wrapping on tubes....27c
3 " " " cones 25c
4 " " " " " 25c
India Hemp, ¼-lb. balls 19c
" " ½-lb. " 18c
" " ¼-lb. " .....doz. 75c
2-ply Jute, ¼-lb. " 14c
3-ply Jute, ½-lb. " 13c
Jute Wrapping, ½-lb. balls.....14c
Jute Wool, 1-lb. balls.....9½c
Seins.
Nos..... 9 12 15
Soft.....per lb 26½ 26 25
Med..... " 26½ 26 25
Hard..... " 27 26½ 26
Staging, ¾-lb. ball, size 21.....26½c
" " " " 24.....26c
" " " " 27.....26c
Bagging " " 23c
3-p y "B" in hanks 18c
4- " "B" " 18c
3 " "A" " 27c
3 " Silver Finish, in hanks...37c
Fodder or Lath.
130 strand.....6½c
200 strand.....—c

VISES.

Phœnix.....30%
Phœnix Oval Slide.
Inches..... 2½ 3 3½ 4½
Each..... $1.25 1.50 1.85 2.75
Parker's Parallel.
No discount.
No. 40.....$4 40
No. 100.....5 20
No. 200.....6 80
No. 300.....8 00

Parker's Victor.
Stationary base.. No discount.
No. 370.....$ 5 20
No. 371.....5 60
No. 372.....8 00
No. 373.....11 20
No. 375.....19 20
Swivel base. No discount.
No. 270.....$ 5 60
No. 271.....6 80
No. 272.....10 00
No. 273.....12 80
Parkers's Combination.
No discount.
No. 87.....$7 20
No. 88.....9 00
Solid Box.....40&5%
Adams' Mechanics'.....each 2 50
Williamson's Universal.....60%

WARE.

Stove Hollow Ware.
Plain or Unground.....50%
Ground Ware.....45%
Enameled Ware.....33⅓%
Country Hollow Ware, per 100 lbs. $3 00
White Enameled Ware.
Maslin Kettles.....60&10%
Covered Ware.
Tin'd and Turn'd.....35&10%
Enameled.....45&10%
Glue Pots.
Tinned.....25%
Enameled.....20%
Enameled.
Cherry Blossom and Chrysolite..50%

WASH BOARDS—See Boards.

WASHERS.

Standard O G. cast iron . . .per lb. 2½c
Wrought iron in bulk, per lb :
In. ½ ⅝ ¾ ⅞ 1
9c 6½c 5c 4½c 4½c 4½c 3½c
Wrought steel in 5-lb. boxes, per lb.:
In. ½ ⅝ ¾ ⅞ 1
10c 7c 6c 5½c 5c 5c 4½c

WASHING MACHINES—

See Machines.

WEDGES.

Ax.....per doz. $0 30
Galling.....per lb. 10½
Saw..... " 8½

WEANERS

Calf.
Fuller's, per doz.....$2 00 to $2 50
Tyler's Safety, per doz 1 85 to 2 40
Carroll's, per doz..... 3 00 to 3 75
Standard, per doz..... 3 00
Hoosier, per doz..... 3 50 to 4 60

WEIGHTS.

Hitching.....per lb. 2½c
Sash—f.o.b Chicago....pr ton. 26 50

WHEEL BARROWS.

Common Railroad.....per doz. $17 00
Heavy Railroad..... " 24 00
Panama Steel Tray.... " 30 00
Klondike Steel Tray.. " 28 00

WHEELS.

Corundum.....70&10&5%
Emery.....75&5%
Well. Inches.. 8 10 12 14
Per doz..... $2.40 3.25 4.00 6.00

WIRE.

Barbed. Painted. Galv'd
Carloads . . per 100 .bs. $2.33 $2.63
Less than car " 2.43 2.73
Brass.
In coils.....20%
In 1-lb. spools, new list.....50%
Broom—Tinned . . . 60&10&10&10%
Cable—Same price as Barbed Wire.
Copper.
In coils.....20&10%33⅓%
1-lb. spools, new list.....50&10%
Fence—Smooth.
Nos. 6 to 9, An'eal'd, pr 100 lbs. $2 30
Nos. 6 to 9, Galv'd.. " 2 60
Hair—New List.....30%
Market.
Bright, full bdles.....70&5%
Bright, broken bdles.....70%
Coppered, full bdles 70%
Coppered, broken bdles.....65&10%
Tinned, full bdles.....75&5%
Tinned, broken bdles.....65&10%
Picture—In coils . . . . 80% @80&10%
In 5-lb. spools.....per lb.....26c
Plain—Small lots..... $2 10
Car lots..... 2 05
Small spools 5c per 100 higher.

WRENCHES.

Acme Standard.....60%
Alligator No. 1 .....85cnet
Always Ready.....50%
Agricultural.....75&5%
Ellis Adjustable.....25%
Malleable "S".....per lb. 08c
Malleable..... " 08c
Stillson Pipe.....70%

WRINGERS.

No. 22, Guarantee....per doz. $32 50
No. 110, Guarantee.... " 32 50
No. 110, Brighton..... " 23 50
No. 110, Bicycle..... " 31 50
No. 500, Royal..... " 32 50
No. 350, Universal..... " 28 00
No. 300, Novelty..... " 28 00
No. 310, Keystone..... " 28 00
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Advance Radiator Co., Syracuse, N. Y
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Berger Bros. Co., Philadelphia, Pa

Bolts
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Hussey & Co., C. G., Pittsburg, Pa

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Disston & Sons Henry, Philadelphia, Pa
Griffin Mfg. Co., Erie, Pa
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North Bros. Mfg. Co., Philadelphia, Pa
Pullman Mfg. Co., Rochester, N. Y
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Carriage Forgings
Columbus Bolt Works, Columbus, O

Ceilings
Berger Mfg. Co., Canton, O
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Auld & Conger Co., Cleveland, O
Conners, Wm. Paint Mfg. Co., Troy, N. Y

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Sterling Foundry Co., Sterling, Ill

Chimney Tops
Eureka Fence Mfg. Co., Richmond, Ind
Iwan Bros., South Bend, Ind
Sterling Foundry Co., Sterling, Ill

Coil Springs
Pullman Mfg. Co., Rochester, N.

Conductor Hangers
Berger Bros. Co., Philadelphia, Pa

Conductor Pipe
Badger Steel Roofing & Corrugating Co., La Crosse, Wis
Berger Mfg. Co., Canton, O
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Clark, Quinn & Morse, Peoria, Ill
Eller Mfg. Co., Canton, O
La Crosse Steel Roof. Co., La Crosse, Wis

Conductor Pipe Machinery
Armor-Clad Mfg. Co., Canton, O

Copper and Brass
Hussey & Co., C. G., Pittsburg, Pa

Core Compound
Obermayer Co., S., Cincinnati, O

Corn Cribs
Denning Wire & Fence Co., Cedar Rapids, Ia

Cornices
Berger Mfg. Co., Canton, O
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Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O

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Bertsch & Co., Cambridge City, Ind
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Smith & Hemenway Co., New York, N.Y
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Henkel Mfg. Co., The, Canal Dover, O
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Milwaukee Corrugating Co., Milwaukee, Wis
Sullivan-Geiger Co., The Indianapolis, Ind.

Dampers
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Door Hangers
Griffin Mfg. Co., Erie, Pa
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Milwaukee Corrugating Co., Milwaukee, Wis
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Eave Trough Hangers
Canton Mfg. Co. Canton, Ohio
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Elbows—Conductor Pipe
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Dieckmann, Ferdinand, Cincinnati, O.
Eller Mfg. Co., Canton, O
Milwaukee Corrugating Co., Milwaukee, Wis.
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Elevators
Kimball Bros Co. Council Bluffs, Ia

Enameled Ware
Star Enameling & Stamping Co., Pittsburg, Pa

Fencing—Wire
American Steel & Wire Co., Chicago, Ill
Denning Wire & Fence Co., Cedar Rapids, Ia
Eureka Fence Mfg. Co., Richmond, Ind
Janesville Barb Wire Co., Janesville, Wis
Pittsburgh Steel Co., Pittsburgh, Pa

Files
Carver File Wks, Philadelphia, Pa
Disston, Henry & Sons, Philadelphia Pa

Fixtures—Store
Warren Mfg. Co., J. K., Chicago, Ill

Food Choppers
Enterprise Mfg. Co. of Pa., Philadelphia, Pa.

Forming Rolls
Armor-Clad Mfg. Co., Canton, O
Bertsch & Co., Cambridge City, Ind
Niagara Machine & Tool Works, Buffalo, N. Y

Foundry Supplies
Obermayer, S. Co., Cincinnati, O

Fuel Chutes
Sterling Foundry Co. Sterling, Ill

Furnace Cement
Conners Paint Mfg. Co., Wm., St. Louis, Mo

Furnaces—Hot Air
American Furnace Co., St. Louis, Mo
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Graff Furnace Co., New York, N. Y
Green Fdy. & Furn. Wks., Des Moines, Ia
Haynes-Langenberg Mfg. Co., St. Louis, Mo
Henry & Scheible Co., Cleveland, O
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Furnace Rings
Walworth Run Fdy. Co., Cleveland, O

Furnaces—Soldering
Burgess Soldering Furnace Co., Columbus, Ohio
Clayton & Lambert Mfg. Co., Detroit, Mich
Diener Geo. W. Mfg. Co., Chicago, Ill
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Furnace Pipe and Fittings
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Wheeling Corr. Co., Wheeling, W. Va

Gas Machines
Whitacre Mfg. Co. J. E., Rockford, Ill

Gas Stoves
Stove & Range Co. of Pittsburgh, Pittsburgh, Pa

Gasoline Stoves
Ringen Stove Co., St. Lou's, Mo.
Schneider & Trenkamp Co., Cleveland, O

Grain Bins
Denning Wire & Fence Co., Cedar Rapids Ia

Grindstones
Richards Mfg. Co., Aurora, Ill

Hangers—Garment
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Clark, Quinn & Morse, Peoria, Ill

Hardware Specialties
Caldwell Mfg. Co., Rochester, N. Y
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Smith & Hemenway Co., New York N. Y
Sterling Foundry Co., Sterling, Ill
Sturges & Burn Mfg. Co., Chicago, Ill
Taylor & Boggis Fdy. Co., Cleveland, O
Welland, Chas., New York, N. Y

Heaters—Hot Water
Detroit Heating & Lighting Co., Detroit, Mich

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North Bros. Mfg. Co., Philadelphia, Pa
Reid-Edelmuth Mfg. Co., Brooklyn, N. Y
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Iron Enamel

Black Silk Stove Polish Works, Sterling, Ill.
Nickel Plate Stove Polish Co., Chicago, Ill

Kitchen Utensils

Avery Stamping Co. Cleveland, O
Star Enameling and Stamping Co., Pittsburgh, Pa

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Brilliant Gas Lamp Co., Chicago, Ill

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Enterprise Mfg. Co. of Pa. Philadelphia, Pa

Lawn Fence

Banning Wire & Fence Co., Cedar Rapids, Ia

Lawn Mowers

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Metal—Perforated

Harrington & King Perforating Co., Chicago, Ill

Metal Polish

Black Silk Stove Polish Works, Sterling, Ill
Nickle Plate Stove Polish Co., Chicago, Ill

Metal Shingles

Burton W. J. Co., Detroit, Mich
Canton Art Metal Co., Canton, O
Cortright Metal Roofing Co., Philadelphia and Chicago
Nat'l Sheet Metal Roofing Co., Jersey City, N. J

Mica

Munsell & Co., Eugene Chicago, Ill

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Sturges & Burn Mfg. Co., Chicago, Ill

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Whitacre, J. E. Mfg. Co., Rockford, Ill

Nails and Tacks—Copper

Hussey & Co. C. G., Pittsburg, Pa

Nails—Wire

Janesville Barb Wire Co., Janesville, Wis

Nuts

Columbus Bolt Works, Columbus, O

Paints and Paint Specialties

Connors, Wm., Paint Mfg. Co., Troy, N. Y
Dixon, Jos. Crucible Co., Jersey City, N. J

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Dixon, Jos. Crucible Co., Jersey City, N. J

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Harrington & King Perforating Co., Chicago, Ill

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Berger Bros. Co., Philadelphia, Pa

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Iwan Mfg. Co., South Bend, Ind
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Star Bucket Pump Co., St. Louis, Mo

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Armstrong-Blum Mfg. Co., Chicago, Ill
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Niagara Machine & Tool Works, Buffalo, N.Y
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Connors Wm., Paint Mfg. Co., Troy, N.Y

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Advance Radiator Co., Syracuse, Ind
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American Sheet & Tin Plate Co. Pittsburgh, Pa
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Stuber & Kuck. Peoria, Ill

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Sykes Steel Roofing Co., Chicago, Ill

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Sykes Steel Roofing Co., Chicago, Ill
Weiss, H. & Co., New York, N.Y

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Auld & Conger Co., Cleveland, O

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Hussey & Co., C. G., Pittsburg, Pa

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Ruby Chemical Co., Johnston, Ohio
Solderene Co., The Boston, Mass

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Disston, Henry & Sons, Philadelphia, Pa

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Landay Steel Range Co., St. Louis, Mo
Marion Stove Co., Marion, Ind
Monitor Stove & Range Co., Cincinnati, O
Quality Stove & Range Co., Belleville, Ill
Ringen Stove Co., St. Louis, Mo
Schneider & Trenkamp Co., Cleveland, O
Stove & Range Co. of Pittsburgh, Pittsburgh, Pa.
Van, John, Range Co., Cincinnati, O

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Stuber & Kuck, Peoria, Ill

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Cleveland Castings Pattern Co., Cleveland, O
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Quincy Pattern Co., Quincy, Ill
Vedder Pattern Works, Troy, N. Y
Weller Pattern Co. Quincy, Ill

Stove Pipe

Hemp & Co., St. Louis, Mo

Stove Pipe Thimbles

Stuber & Kuck, Peoria, Ill

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Connors Paint Mfg. Co., Wm., St. Louis, Mo
Dixon, Jos. Crucible Co., Jersey City, N. J

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Sugar Kettles

Sperry, D. R. Co., Batavia Ill

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Obermayer Co., S., Cincinnati, O

Supplies—Stove Dealers'

Brauer, A. G., Supply Co., St. Louis, Mo

Tapes

Lufkin Rule Co., Saginaw, Mich

Technologist

Hooper, C. N. Dubuque, Iowa

Thermometers—Oven

Evans Stamping & Plating Co., Taunton, Mass

Tin—Perforated

Harrington & King Perforating Co., Chicago, Ill

Tinners' Furnaces

Burgess Soldering Furnace Co., Columbus, Ohio
Clayton & Lambert Mfg. Co., Detroit, Mich
Diener Mfg. Co., Geo. W., Chicago, Ill
Meyer Fdy. & Mfg. Co., South Bend, Ind

Tinners' Tools

Armor-Clad Mfg. Co., Canton, O
Armstrong, Blum Mfg. Co., Chicago, Ill
Auld & Conger Co., Cleveland, O
Berger Bros. Co., Philadelphia, Pa
Bertsch & Co., Cambridge, Mass
Bicknell Mfg. & Supply Co., Janesville, Wis
Lufkin Rule Co., Saginaw, Mich
Niagara Machine & Tool Works, Buffalo, N. Y
Robinson Mfg. Co., J. M., Cincinnati, O
Smith & Hemenway Co., New York N.Y
Weiss & Co., H., New York, N. Y

Tinplate

American Sheet & Tin Plate Co., Pittsburg, Pa
Eller Mfg. Co. Canton, O
Follansbee Bros. Co., Pittsburgh, Pa
Merchant & Evans Co., Philadelphia, Pa
Wheeling Corrugating Co., Wheeling, W. Va

Tinware Trimmings

Berger Bros. Co., Philadelphia.

Tools, Etc.

North Bros. Mfg. Co., Philadelphia, Pa
Perfection Wrench Co., Port Chester, N. Y
Rock Island Tool Co., Rock Island, Ill
Stanley Rule & Level Co., New Britain, Conn

Tools—See Carpenters' Tools

Tools—Linemen's

Smith & Hemenway, New York, N.Y

Trowels

Avery Stamping Co., Cleveland, O
Disston, H. & Sons, Inc., Philadelphia, Pa
Griffin Mfg. Co., Erie, Pa

Tubing—Heavy Tin

Dieckmann, Ferdinand, Cincinnati, O

Ventilators

Berger Mfg. Co., Canton, Ohio
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O
Friedly & Voshardt, Chicago Ill
Globe Ventilator Co., Troy, N. Y
Iwan Mfg. Co., South Bend, Ind
Merchant & Evans Co., Philadelphia, Pa
Pullman Mfg. Co., Rochester, N. Y
Sterling Foundry Co., Sterling, Ill
Uno Ventilator Co., Lynn, Mass

Vises

Rock Island Tool Co., Rock Island, Ill

Washers

Columbus Bolt Works., Columbus, O

Washing Machines

Brammer, H. F., Mfg. Co., Davenport, Ia
White Lily Mfg. Co., Davenport, Ia

Wire

American Steel & Wire Co., Chicago Ill
National Wire Cloth Co., Niles, Mich

Wire Goods

Bromwell Brush & Wire Goods Co., Cincinnati, O
Dunning Wire & Fence Co., Cedar Rapids, Ia
Janesville Barb Wire Co., Janesville, Wis
National Wire Cloth Co., Niles, Mich
Pittsburgh Steel Co., Pittsburgh, Pa

Wrenches

Perfection Wrench Co., Port Chester, N.Y

Wants and Sales

For Paid Yearly subscribers THE AMERICAN ARTISAN will insert under this head advertisements of six lines WITHOUT CHARGE for employers wishing to secure employes, persons seeking situations, parties desiring to purchase a business, businesses for sale, partners wanted, to exchange, etc. Those who respond to these announcements will please mention that they "READ THE ADVERTISEMENT IN THE AMERICAN ARTISAN."

BUSINESS CHANCES.

PATENTS HUBERT E. PECK 623 F. STREET, N. W.
Washington, D C. Consulting Expert in Patent Causes. U. S and Foreign Patents. Send for leaflet on "Rejected Patent Applications."

For Sale—Nice clean hardware stock. Doing a good business in good town and best farming district. Located in north central Iowa. Will give square and honorable deal. Don't answer unless you have the cash. No trade considered. Stock about $5,000, building and lot a snap at $2,000. Part time if wanted on building and lot. This will bear the closest inspection, and is a snap for anyone looking for a location for hardware store. Address L-89, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 3-3t

For Sale, or Partner Wanted—I wish to sell my tinner's tools and business, in good town of 3,000 inhabitants; or will take in partner who understands plumbing and hot water work. Will furnish the money if desired. I have a fine business for the right man. Address W. P. Rogers, Broken Bow, Nebraska. 3-3t

For Sale—Clean stock of hardware, stoves, paints, oils, glass, with good paying tinshop in connection. Will invoice $6,000, but can be reduced in thirty days. Located in one of the best towns in southern Wisconsin. Population 600. Cash only. Best of reasons for selling. It will pay you to investigate at once. Address L-91, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 3-3t

Wanted—To correspond with man who would be open for job about April 1st. Married preferred, German or Scandinavian. Good job; steady work for man that can handle shop. Must do all and any kind of repairing, furnace work, also heating and plumbing. Wages $15 per week. In good southern Minnesota village. Address L-90, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 3-3t

For Sale—Half or full interest in good hardware business. One member of firm wishes to engage in other business. Address L-87, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-3t

Wanted—I have $4,000 or $5,000 to invest in the hardware business. Would consider a quarter or half interest in a large stock with services. Address L-84, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-3t

Wanted—Good hardware man who has $5,000 to invest in the general hardware business to join with me for a like amount in some good city to be determined upon by the new firm. Have had 20 years' experience. Address L-85, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-3t

Wanted—By manufacturers agent to sell on a commission basis in Missouri, Kansas and Oklahoma, lines of housefurnishing goods, such as gas and gasoline stoves, refrigerators, stove pipe, enamel ware and kitchen utensils. Address L-81, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-3t

For Sale—Hardware stock with tinshop in connection. Stock about $6,000. Good locality. Selling on account of death of proprietor. Address Mrs. George Rahn, 424-426 W. Belmont Ave., Chicago, Illinois. 2-3t

For Sale—Tin, sheet metal, cornice and skylight shop with stock and tools. In Southern Colorado. Reason for selling, death in family. Address Lock Box 843, Trinidad, Colorado. 2-3t

For Sale—Hardware stock. Invoices about $3,000. Splendid location. Northern Illinois town, near Chicago. Address L-76, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 1-3t

Wanted—Hardware stock. Do you want to sell and sell quick for cash? Will pay from fifty to sixty cents on the dollar. Give full description in first letter. Address L-77, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 1-3t

TINNER'S TOOLS.

Wanted—30" squaring shears; No. 1 P. & W. punch and shears; 8-foot brake. Tools must be in good condition and cheap for cash. State price in reply. Address J. G. Wimmer, 354 Seventh St., Dubuque, Iowa. 3-3t

For Sale—Complete set of tinner's tools in first-class condition—from snips up to square shears. Write for price list. Address L-78, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-3t

Wanted—Complete set second-hand tinner's tools. Must be in first-class condition. Send complete description and lowest cash price. Address C. F. Bemis, 122 West 32nd St., Minneapolis, Minnesota. 1-3t

Wanted to Buy—Will pay cash for one ten-foot cornice brake in good condition. Send description and price. Address John Droegkamp Co., 1515 Fond du Lac Ave., Milwaukee, Wisconsin. 1-3t

Wanted—One 30" stove pipe former; one 30" stove pipe folder; one small burring machine; one light crimper; one mandrel. Must be in good condition and cheap. Address Adolph Scheid, 719 E. Third St., Mishawaka, Indiana. 1-3t

HELP WANTED.

Wanted—A first-class furnace tinner to take entire charge of our furnace department. A good opportunity to make money for the right man. Address L-93, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 3-3t

Wanted—Two good traveling salesmen to sell stoves, furnaces and hardware specialties on a commission basis. Will advance traveling expenses. Territory: Minnesota, North and South Dakota, and Western Wisconsin. Address L-94, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 3-3t

Wanted, Tinner—Who fully understands hot air and hot water heating. Steady employment to the right man. Address L-95, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 3-3t

Wanted—First-class tinner. Must be strictly sober and reliable. Steady job. Address W. Trusler, Eskridge, Kansas. 3-3t

Wanted—Good all around tinner and man who can do plumbing. Married man about 35 years of age, sober and good habits. Steady position the year around for the right party. Good Ohio town of about 1,200. Address W. H. O., Box 96, Brookville, Ohio. 2-3t

Wanted at Once—For country shop, good tinner with some knowledge of furnace work and plumbing. Must clerk some in store and hustle trade. Married man preferred. Rent $7; wages $60 with prospects of a raise. Address H. A. Ebert, Alden, Minnesota. 2-3t

Tinner Wanted—Am in need of man who can do tinning and plumbing and need him right away. Steady work, good wages. Address J. C. Tanner, Falls City, Nebraska. 2-3t

Traveling Salesman Wanted—To sell on commission as a side line, several new sheet metal articles. If interested mention territory. Address Lock Box 2, Roanoke, Illinois. 2-3t

Tinner Wanted—At once. To do inside work; also to do some outside work. Address Seizer Bros., Morning Sun, Iowa. 2-1t

Help Wanted—Man to help about store, who is capable of doing ordinary tinning, plumbing and heating when called upon. To such a man will give steady work with good wages. References. No boozer need apply. Address L-79, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-3t

Salesman Wanted—To sell reliable line of furnaces in Wisconsin, for manufacturer on commission. Address L-82, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-3t

Tinner Wanted—To work as tinner and clerk. Must have good references. Steady job. No time lost. Address P. McCartney, West Chicago, Illinois. 2-3t

Wanted—Up-to-date cornice cutter and working foreman for tin and slate roofing. Able to handle cornice and skylight work from plans. Steady, sober and competent man. Address George K. Weissenberger, 4004 Spring Grove Ave., Cincinnati, Ohio. 1-3t

SITUATIONS WANTED.

Situation Wanted—By good all around hardware man to help about the store. Capable of doing ordinary tinning, figuring, hot air, furnace, plumbing, heating, gasoline engine repairing, pump and wind mill work. Am good, all handy man, straight, honest, married, good salesman, and can furnish best of references. Want steady job. Wisconsin or Illinois. State full particulars. Address L-92, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago, Illinois. 3-3t

Situation Wanted—By tinner of twelve years' experience. Can do all classes of work, furnace, steel ceiling, etc. Age 32; sober and steady. Only those who have steady job need answer. Address L-96, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 3-1t

Situation Wanted—As retail hardware clerk. Twelve years' experience. Age 28. Best of references. Address L-86, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-3t

Situation Wanted—By mechanic who can handle anything in heating, plumbing or sheet metal line. Can furnish complete outfit of tools for any kind of work. Address L-80, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-3t

Situation Wanted—By tinner. Would rent shop and run it on percentage basis. Address L-83, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-3t

Situation Wanted—As retail hardware and stove salesman by young man 27 years of age. Five years' experience as traveling stove salesman, also retail experience. Successful record and can make good. Address L-88, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 2-3t

SPECIAL NOTICES.

WANTED

A Hustler—an A1 traveling man to sell the hardware jobbing trade. Steady position to good man. Address with references. Meyer Foundry & Mfg. Co., South Bend, Indiana. 3-ufn

WANTED

A few good men, with stove experience, to invest, along with me, sufficient money to start a stove foundry in the best stove market city in the country. For particulars address B-80, care THE AMERICAN ARTISAN, 355 Dearborn street, Chicago, Illinois. 3-3t

STOVE SALESMEN WANTED

For a complete modern line of Gas, Coal and Wood Stoves. Territory—one for Western New York and Pennsylvania, also one for Indiana and Eastern Illinois. Address B 63, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 24-ufn.

WANTED

A capable man who can handle a japanning department in a tin can factory and who understands the mixing of paints. Advise wages wanted and if strictly sober and where now working. Reply to National, care THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago, Illinois. 26-4t

FOR SALE

Good clean Hardware Stock with Tinshop. Located in one of the largest Wisconsin towns. Invoices about $4000. Splendid trade but sales can be doubled by devoting more time to the business. Owner has manufacturing interests which require his entire attention. Cash only. Address Retailer, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 22-ufn

SPECIAL NOTICES.

SALESMEN

WANTED — To sell the best Combination Can Opener, Knife and Shear Sharpener on the market. Sells on sight. Can be carried as side line. Sample mailed for 25 cents. Terms dealers. Address Atlas Stamping and Plating Works, 88 West Jackson Boulevard, Chicago, Illinois. 1-13t

Situation Wanted

By first-class Stove Salesman of considerable ability with established trade in New Jersey, New York and Pennsylvania. In habit of calling on large trade. First-class reference. Address B-37, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 19-ufn

WANTED

An experienced man who can take charge of the finishing department of a Metal Furniture Plant. Must know the best and most modern methods. State experience and salary wanted. Address HYGIENE CABINET COMPANY, Carlisle, Indiana. 2-2t

FOR SALE

Sheet Metal Shop. Excellent location. Well equipped. Fine trade, only shop in vicinity. Should net $4,000.00. Family reasons for selling. Address B-75, THE AMERICAN ARTISAN, 355 Dearborn St., Chicago, Ill. 1-3t

Wanted

A Salesman experienced in selling Tin Plate, Sheets, Roofings and Sheet Metal Products. Ohio and Indiana Territory Advise experience, giving territory and acquaintance with trade. Furnish reference. State salary wanted. Address Experience, care THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago, Illinois. 2-2t

Position Wanted

Experienced stove salesman would like to correspond with stove manufacturer in need of man in Chicago or West. Address B 62, care of THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago. 24-ufn.

SALESMAN WANTED

A strong specialty salesman for Nebraska. Must have experience calling on hardware trade and be familiar with tinware and galvanized ware. Must be able to deliver the goods and ready to take up the work at once. Good trade established, commission basis. Give age, experience and references. None but salesmen need apply. Address B-77, care THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago, Illinois. 2-3t

FOR SALE

A line of medium-priced oak patterns, filed and fitted in the iron, ready for follow boarding in 12", 14", 16" and 18" bodies. Strictly up-to-date in every respect. Write to or call at Quincy Pattern Company, Quincy, Illinois. 3-6t

5 Pound Cans For Dealers' Use

Black Silk Stove Polish

Buy From Your Jobber

Domestic Packages For Retailing

FOR SALE

A quantity of 18 GAUGE GALVANIZED STEEL 3½" wide by 96" long. Address J. E. Whitacre Mfg. Co., Rockford, Illinois. 1-4t

WANTED

Traveling Salesman to represent a well known manufacturer of stoves and ranges in Southern Wisconsin. Also a man for the state of Iowa. Address B-70 care THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago, Illinois, giving past experience and references. 26 4t

OPPORTUNITY

Port Huron, Michigan, hardware, awning and roofing materials business, formerly ship chandlery, FOR SALE at rock bottom inventory. Brick veneer building, 40x80. Lot 75x120. Railroad on 120 foot side, boat dock one-half block. Selling on account of age of owner. This is a good opportunity for a hardware man and will stand the closest investigation. Address, B-72, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago, Ill. 26-4t

WANTED

As foreman or superintendent in a union shop, a man who has had experience in cutting patterns, taking off quantities from plans, for a cornice and sheet metal factory, located in the middle West; would prefer man who has had experience in shops in large city and who has had experience in handling men to a good advantage; steady work guaranteed to the right man; state wages expected, experience and where; none but first-class and competent men need apply; would also like to correspond with man who has had experience on Ohl Power Cornice Press. Address Foreman, are THE AMERICAN ARTISAN, c55 Dearborn street, Chicago, Illinois. 3-ufn

Will you accept this business book if we send it free?

Sign and mail the coupon below. Send no money! Take no risk! One hundred and twelve of the world's master business men have written ten books—2,103 pages—1,497 vital business secrets. In them is the best of all that they know about

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—Advertising	—Man-Training	—Competition Fighting
—Correspondence	—Organization	and hundreds and hundreds of other vital business subjects.
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A booklet has been published describing, explaining, picturing the work. Pages 2 and 3 tell about managing businesses great and small; pages 4 and 5 deal with credits, collections and with rock-bottom purchasing; pages 6 and 7 with handling and training men; pages 7 to 12 with salesmanship, with advertising, with the marketing of goods through salesmen, dealers and by mail; pages 12 to 15 with the great problem of securing the highest market price for your services—no matter what your line; and the last page tells how you may get a complete set—bound in handsome half morocco, contents in colors—for less than your daily smoke or shave, almost as little as your daily newspaper.

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If there are, in your books, any new ways to increase my business or my salary, I should like to know them. So send on your 16-page free, descriptive booklet. I'll read it.

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HAVE MODERN FACTORY AND AMPLE FLOOR SPACE. WOULD LIKE TO MANUFACTURE AND MARKET A GAS MACHINE OF THE "AIR LIGHT" TYPE, WHICH HAS BEEN TESTED AND FOUND PERFECT IN USE. Address with full particulars, B-78, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago Illinois. 2-4t

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Made from very thick metal, without Stay Bolts, joint packed in such a manner as to never need repacking. A little higher priced than some, but *they are safe and tight.*

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You will never know what you can do until your best energies have been put to a test. This school is MORE THOROUGH AND FAR ADVANCED IN DETAILING AND DEVELOPING SHEET METAL WORK THAN ANY OTHER, WHICH HAS BEEN AMPLY PROVEN BY THE SUCCESS AND RAPID ADVANCEMENT OF OUR MANY SCHOLARS.

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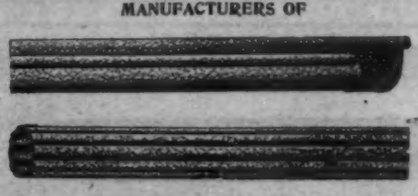
ALWAYS  **LEADS**

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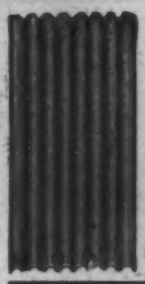

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They make the most durable roof known for every kind of building.

They make, in the long run, the cheapest roof known, and the first cost is no greater than that of heavily coated steel plate roof.

CHARCOAL IRON PLATES are more resistant to corrosion than anything made—demonstrate it for yourselves by sending for method of test.

They are the kind you should use. Write for other reasons.

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ABSOLUTELY PERFECT IN ALL POINTS OF CONSTRUCTION.

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"TITELOCK" Style "A" "TITELOCK" Style "B"

Milwaukee Corrugating Co.

Send for Shingle Booklet. MILWAUKEE, WIS. Chicago, 69 E. Lake St. KANSAS CITY, MO. Send for Ceiling Catalog.

La Crosse Steel Roofing and Corrugating Co.

LA CROSSE, WISCONSIN

MANUFACTURERS OF

EAVES TROUGH
CONDUCTOR PIPE
CUT OFFS
MITRES, ENDS AND DROPS

ROOFINGS AND SIDINGS
STEEL CEILINGS
CORNICES
SKYLIGHTS

Quick Shipments Our Specialty *Send for Catalog*

Iwans' Volcano Revolving Chimney Top

Sizes 6 to 12 inches. Sold by jobbers of Hardware and Tinners' Supplies.

Notice one of its **Strong Features.** The upward sloping opening in back of hood creates a constant upward draft, no matter how depressing the atmosphere.

You need it for some of your customers' chimneys.

Send postal for catalogue.

IWAN BROTHERS
Mfrs. of Hardware Specialties
SOUTH BEND, IND.

THE "BEST" Revolving Chimney Top

Simple, Durable, Easy to Attach. Held as Firmly as the Chimney Itself.

It is all made of cast iron except the vane which is heavy steel.

It is perfectly adjusted. Rain is absolutely prevented from entering the chimney.

It is practically indestructible and will last for years.

Write for illustrated catalog.

STERLING FOUNDRY CO.
Sterling, Ill.

RICHMOND ADJUSTABLE EAVE TROUGH HANGER

The very best Eave Trough Hanger on the market.

Send us your order and we will prove it to you.

RICHMOND REVOLVING CHIMNEY TOP

No smoking chimneys where this top is used.

It is superior to all others.

Made right, works right and is Priced right.

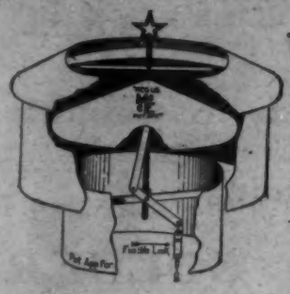
Catalog containing complete descriptions sent on request

EUREKA FENCE MFG. CO., RICHMOND, IND.

C. N. HOOPER, Dubuque, Ia.

Vitreous Enameling TECHNOLOGIST

Designs, builds and starts new plants, improves quality and reduces the costs in those already established.



The "STAR" VENTILATOR

AND

The FIRE RETARDING "STAR" VENTILATOR and DAMPER COMBINED

Embody everything in the Best Scientific Storm Proof Ventilator.

MERCHANT'S METAL "SPANISH" TILES and "GOTHIC" SHINGLES.

These Tiles and Shingles have proved meritorious for years. They are in demand where ornamentation is essential. Also Lightness and Durability are special features of merit.

"Reg. in U. S. Pat. Off."

Write for Booklets.

Merchant & Evans Co.

Sole Manufacturers

Philadelphia New York Brooklyn Baltimore Denver Chicago Kansas City

Standard Metal Shingles

The Canton Ventilator

Made with Metal and Glass Tops and with and without Automatic closing device.

THE CANTON MFG. CO.
CANTON, OHIO

Makers of
Cornice, Skylights, Metal Ceilings, Eaves Trough, Conductor Pipe, Etc.

SIX STANDARD PRODUCTS

USED BY ALL THE LEADING STOVE AND RANGE MANUFACTURERS

W. Dewees Wood Company's Patent Planished Iron.
Wood's Cleaned Refined Smooth Finish.
Hammered Polished Steel.
Wood's Oak Stove Body.
Wellsville Polished
Range Steel.

MANUFACTURED BY

AMERICAN SHEET AND TIN PLATE COMPANY

FRICK BUILDING PITTSBURGH, PA.

Uno Revolving Ventilators

A sure cure for smoky chimneys, the best for ventilation.

4" to 30"

Send for Catalogue

Uno Ventilator Co.
P. O. Box 980. LYNN, MASS.

LOCK-JOINT. Metal Ceiling WILL SELL

When you can offer ceilings with genuine advantages which can be absolutely demonstrated there is no question about their selling.

LOCK-JOINT METAL CEILINGS can be proven **entirely Dust-proof and Air-tight** which is a clinching argument.

Money is Being Made

every day by dealers everywhere with **Lock-Joint Metal Ceiling** because their competitors cannot secure ceilings which will cope with them when it comes to selling qualities.

We would be pleased to send you **Catalog "D,"** showing handsome panel effects and artistic combinations which will undoubtedly interest you. Write for it.

S. Keighley Metal Ceiling & Mfg. Co.
Pittsburgh, Pa.

Baltimore New York Washington Boston

THE AMERICAN ARTISAN Keeps You Posted.

SHEET METAL

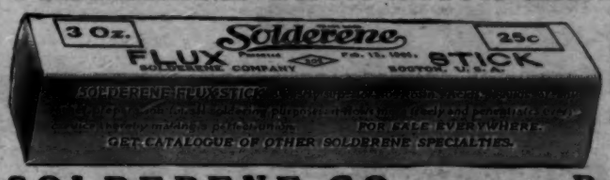
Black and Galvanized Flat Sheets, made from Genuine Charcoal Iron, Bloom Iron or Steel. Corrugated and all other styles Roofing and Siding.

TIN PLATE COPPER SOLDER

THE BASSETT PRESLEY CO.

CLEVELAND, OHIO.

SOLDERENE FLUX STICK and FLUX PASTE



Two specialties of unusual merit for all general purposes in the factory, laboratory or on the job.

Economical, Waterproof, Odorless, Non-Corrosive, and will not evaporate or rust.

WRITE FOR OUR TERMS TO THE TRADE.

SOLDERENE CO., Boston, Mass.

The Canton Art Metal Co.

Announces that they are in a position to name attractive prices on *Eave Trough, Conductor Pipe and Sheet Metal Goods of All Kinds.*

EASTERN BRANCH
THE CANTON STEEL CEILING COMPANY
525 W. 23rd St., New York City

WESTERN BRANCH
THE CANTON STEEL CEILING COMPANY
253 Second Ave. South, Minneapolis, Minn.

The "TORRID" Square Furnace

The most economical and hottest on the market. Noiseless, odorless and smokeless in operation. Our No. 10 has the greatest range in heating of any furnace made, namely 3 to 12 pound coppers, indoors or on a roof in cold and windy weather. Order of your jobber, or we will ship direct for $6.50, on 30 days approval.

GEO. W. DIENER MFG. CO.
77-83 West Lake St., Chicago

RUBY FLUID

Is an anti-rusting, non-corrosive, non-poisonous and non-explosive, not affected by age or change of temperature or exposure in open vessels. It is a perfect flux for GALVANIZED and ALL other metals. Shipped in tin cans, ready for use. On ten days trial.

The Ruby Chemical Company, Johnstown, Ohio, U. S. A.
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H. WEISS & CO.

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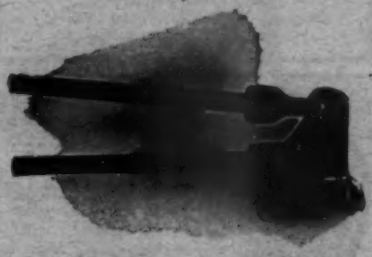


Hand Punch for No. 10 Iron

Skylight Gearing and Chain Lifts

Tinsmiths' and Plumbers' Tools. Cornice Makers' Tools. Coppersmiths' Tools
Pipe Threading Machines

Second-Hand Goods Bought, Sold and Exchanged

Where Successful business men have advertised is pretty safe to advertise.

There is no getting around the Fact.

No 32 Torch, $4 Net.

The No. 32 Torch has other makes beat to a frazzle. If you are skeptical try one and we know you will join other mechanics in saying there is nothing on the market that is in the same class and that you could not afford to use other makes, if they cost nothing.

Jobbers supply at factory price, or if cash accompanies the order we will ship direct.

CLAYTON & LAMBERT MFG. CO.
Detroit, Mich., U. S. A.

Ask Your Dealer For The

Sems

SOLDERING FURNACE

And You Will Make No Mistak

Always Ready—No Smoke—No Odor—No Noise—Unexcelled—Unequalled—Unrivaled—Safe—Sure—Durable.

Galvanized Iron, Brass or Copper Reservoir
Equipped with Cylindrical Slotted Burner

MADE ONLY BY
BURGESS SOLDERING FURNACE CO.
COLUMBUS, OHIO, U. S. A.

LEVER SHEAR

This Lever Shear is made in seven sizes. It is a convenient tool for shearing plates, bars or angle iron. We build a complete line of Shears, Punches and Bending Rolls, all sizes, for hand power.

Write for Catalog "F."

BERTSCH & COMPANY
Cambridge City, Ind.

BICKNELL'S HANDY PUNCHES and SHEAR

Mounted on Pedestal.
Three sizes of Punches and Shear, ready for instant use.
Saves its cost in a few months.

Hand and Power Punches and Shears from 35 lbs. to 2 tons.

BICKNELL MFG. & SUPPLY CO.
Janesville, Wis.

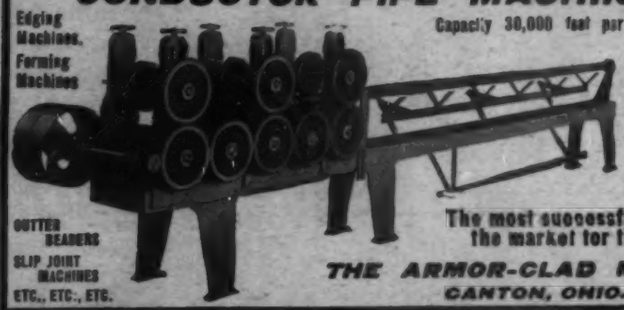
THE ELLER TRADE-MARK
is a little thing to look for, but a big thing to find; it appears on all genuine
ART METAL CEILINGS

Tin and Terne Plate
Eaves Trough, Conductor Pipe
Elbows and Shoes
Steel Roofing
Brick and Stone Siding.
Cornice and Skylight

ELLER MFG. CO. : : CANTON, OHIO

CONDUCTOR PIPE MACHINERY

Capacity 30,000 feet per day of 10 hours.



Edging Machines.
Forming Machines
GUTTER BEADERS
SLIP JOINT MACHINES
ETC., ETC., ETC.

Plain Round, Round Corrugated and Fluted **PIPE.**

The most successful machine on the market for the purpose.

THE ARMOR-CLAD MFG. CO.,
CANTON, OHIO.

Great Assortment of

Ears, Knobs and Handles

Leading Supply House in America for this class of goods.
Ask for samples, catalog and prices.

BERGER BROS. CO., Manufacturers
Office and Stores 237 Arch Street. Warerooms: 100-02-04 Bread Street. Factory: 3114-16-18-20 N. 17th Street.
PHILADELHPIA.

Combined Punch and Shears.

Tools for Sheet Metals

INCLUDING

Tinners' and Roofers' Tools,
Shears, Punches, Presses and
Dies, Can-Making Machinery

MADE BY
NIAGARA MACHINE & TOOL WKS., Buffalo, N.Y.

MARVEL

Patent applied for

PORTABLE PUNCH No. 20

Made entirely of STEEL
Punches ¼ in. hole in ⅜ in. and equivalent
Let us send you one on trial.
Write for circular and price of this and other Marvel Punches and Shears.

ARMSTRONG-BLUM MFG. CO.,
106 N. Francisco Ave., Chicago, Ill.

C. G. Hussey & Company

PITTSBURGH, PENNA.

Manufacturers of

Soft Copper,
Copper Gaskets,
Copper Bottoms,
Soldering Irons
Copper Nails and Tacks,
Tinned Copper,
Polished Copper,
Cold Rolled Copper,
Special Shapes Sheared or Stamped,
Slating Nails,

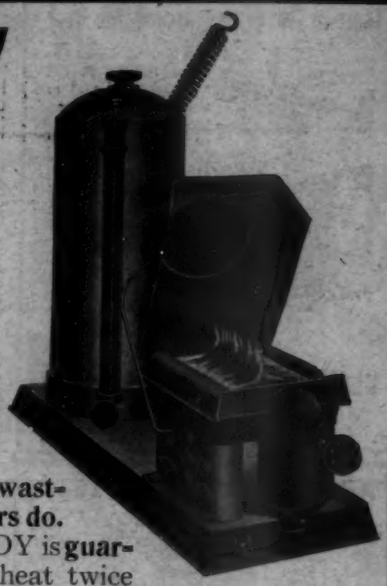
PROMPT SHIPMENT FROM STOCK.

AT LAST!!!

A Soldering Furnace with the **correct** principle of construction.

THE LUNDY DOUBLE BLAST SOLDERING FURNACE

The only furnace made which forces **both** hot blasts **from the outside to the center** (instead of from the center out).



When the tinner is using one soldering iron **Both Hot Blasts** are forced directly upon the iron remaining in the furnace **instead of wasting one blast as all others do.** The LUNDY is **guaranteed** to heat twice as fast as any other, with one-half the gasoline.

Our Offer Ask your jobber to send you one, or we will ship direct. After trying it for ten days, if you think you can find one to suit you better, return it at our expense. *Write for descriptive matter.*

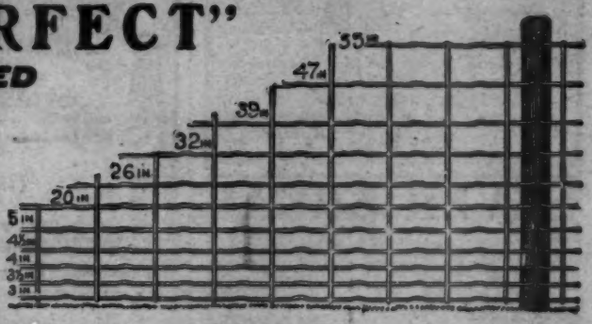
Meyer Foundry & Mfg. Co.
SOUTH BEND INDIANA

THE VERY STRONGEST FENCE MADE

"PITTSBURGH PERFECT"

ELECTRICALLY WELDED

Fences



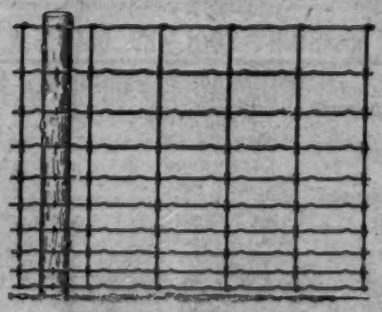
will curb in the strongest beasts. Can be adjusted to uneven ground. Are a sure cure for all fence troubles and will last longer than any other on the market. Dealers wishing to handle a line of goods which will prove ready sellers should carry the

"Pittsburgh Perfect Brands"

of Wire Rods, Bright Annealed and Galvanized Plain Wire, Barbed Wire Wire Nails, Fence Staples, Steel Hoops, Bands and Cotton Ties.

MANUFACTURED BY THE

Pittsburgh Steel Co., Pittsburgh, Pa.



Increase Your Fence Trade

by selling the fence with the

"SWINGING JOINT"

Stretches over hilly and uneven ground more easily and perfectly than other fences on the level. Most flexible and adjustable fence made. Saves your customers "time and trouble in building their fence."

Our Catalog tells all about "APEX" and shows you the ingenious construction of the "Swinging Joint." It's yours for the asking.

BARB WIRE
WIRE NAILS
WIRE FENCING

JANESVILLE BARB WIRE COMPANY
Department A JANESVILLE, WISCONSIN

THE HARRINGTON AND KING-PERFORATING CO.

PERFORATED METALS

OF EVERY DESCRIPTION AND FOR ALL PURPOSES

FOR SCREENS OF ALL KINDS

No. 212 NORTH UNION STREET, CHICAGO, ILL.

New York Office, 114 Liberty Street.

We Manufacture 12 and 14 Mesh

ALUMINOID

in all widths made of 33 wire.

Heavy in 28 wire.

SEND FOR SAMPLES.

NATIONAL WIRE CLOTH CO., Niles, Mich.

DEALERS! Here is a sample of our Farm Advertising

Handle ours and you will be on the right side. The farmer knows about them. We have a branch at Kansas City and can ship on short notice.

"THE DENNING" CORN CRIBS AND GRAIN BINS

Will store your whole crop at a nominal cost.

"THE DENNING" FENCE

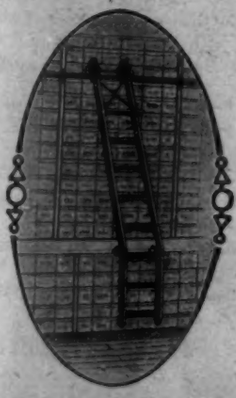
Will take care of your poultry, hogs and stock.

"THE DENNING" LAWN FENCE

Will ornament your premises.

Ask your dealer for "The Denning." Take no substitute.

THE DENNING WIRE & FENCE CO. CEDAR RAPIDS, IOWA



The Milbradt Ladders

ALWAYS PROVE HIGHLY SATISFACTORY

because they are made of the very best material that can be obtained, finished up in first-class style, and as there is nothing about them to give or wear out, or get out of order, will last indefinitely.

Write for our illustrated catalogue.

MILBRADT MFG. CO.

1440 N. 8th Street, - - ST. LOUIS, MO.

The Right Way to Save

is not to get along with your poor, old-style show cases, but to get a modern, up-to-date one at a low price.

THE WOLVERINE KNOCK-DOWN SHOW CASE

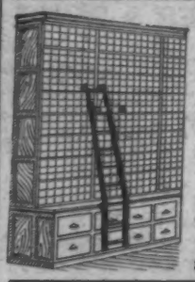
will quickly pay for itself in extra sales made. With its beveled plate glass top, golden oak frame, and nickeled brackets and fittings, it looks like a high-priced show case; but it is not. You can buy it at $5.00 a foot.

We ship it "knock-down" so as to save you two-thirds the freight bill. You can put it together in five minutes without tools. You should write today for our new illustrated catalog. Address Dept. C.

MICHIGAN SHOW CASE CO., 51-53 East Fort Street, Detroit, Mich.

Shelf Boxes,
Hardware Shelving,
Counters,
Screw, Bolt and
Seed Cases,
Store Ladders,
Glass Cutting Boards,
Immediate Shipments,
Send for Booklet.

W. B. HELLER & CO.,
MONTPELIER,
OHIO



Milbradt's Rolling Shelf Ladders

Are made to fit all kinds of high shelvings and are guaranteed to be satisfactory in every respect.

HIGHEST AWARD St. Louis World's Fair

Send for Catalog and Prices.

JOHN CALANDER

Manufacturer

629-631-633 Jackson St.

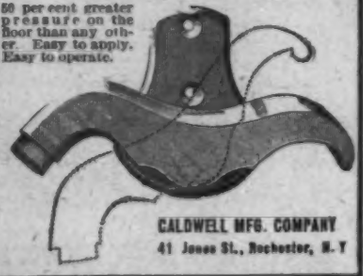
ST. PAUL, MINN.

-SHELVING-
WARREN SYSTEM
SELF PAYING
HARDWARE STORE EQUIPMENT
IN INTERCHANGEABLE SECTIONS
& SCREW, BOLT & GUN CASES
J. D. WARREN MFG. CO. CHICAGO U.S.A.

Empire Door Holder

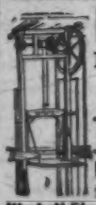
Improved

50 per cent greater pressure on the floor than any other. Easy to apply. Easy to operate.



CALDWELL MFG. COMPANY

41 Jones St., Rochester, N. Y.



ELEVATORS

Improved Quick and Easy, Rising Steam, Electric and Hand Power.

SEND FOR CIRCULAR

KIMBALL BROS. CO.

1031 Ninth St. COUNCIL BLUFFS, IOWA

Kimball Elevator Co., 139 Vincent St., Cleveland, O.

Sell the Cans With a Reputation

Every customer who has used Sturges Milk Cans, will demand them whenever he needs more cans because he knows they are the best the market affords.

He has found out by experience that they stand the hard knocks and rough handling.

He appreciates the smoothly soldered seams, making perfect washing easy.

STURGES MILK CANS

are built by expert mechanics, of high quality steel plates, heavily tinned and retinned in our own shop.

They are built for efficient service.

They always give satisfaction.

Send for catalog 75 describing many styles and sizes and learn about the dealers' profit.

STURGES & BURN MFG. CO.

FACTORY—Harrison, Green and Peoria Sts. OFFICE—235 So. Green St, Chicago, Ill.

NOTE ITS SIMPLICITY

Automatic Swivel Vise

Locks Automatically by Tightening the Jaws

Saves 20 per cent Vise Labor

SEND FOR CATALOGUE

ROCK ISLAND TOOL CO. ROCK ISLAND ILLINOIS, U.S.A.

136 Liberty St. NEW YORK — 116 Lake St. CHICAGO

DENVER, 208 McPhee Building

Genuine "RED DEVIL" Hack Saw Frame

8" to 12". For special work can be used on 14".

Gun Metal Finish. Level Lock, Simple in adjustment.

Retails at a popular price of $1.00.

Samples sent on application.

Order through your jobber or direct from us. Insist upon the Genuine "RED DEVIL"

SMITH & HEMENWAY CO., 108-110 Duane Street, New York City

LIGHTNING RODS

We manufacture Pure Copper Wire Cable Lightning Rods, made of 28, 30 and 49 Wires, with complete outfit of trimmings.

E. A. FOY & CO., Cincinnati, Ohio

Trade Supplied at Lowest Rates.

Send for Catalogue "B."

Maher's Pure Copper Cable

We now have the best Lightning Rod Factory, and the best of machines for twisting our cable. We make all sizes of Pure Copper Cable—30, 32, 34, 36, 40—or in fact any size you want, and our fixtures are the best that can be made—we manufacture them all and know just what they are. We also loan you one of the best static machines on earth free with an order for 2,000 ft. We use the purest copper we can buy and will guarantee it over 99% pure. And this season we have the price and that is what we are all looking for. We do not want all the profit and are willing to divide with you. Just drop us a line and we will explain and send samples of the best Copper Cable Lightning Rods and Fixtures at a price that you can make some money handling it.

MAHER & SON LIGHTNING ROD CO., Preston, Iowa

Barnett SYSTEM — PROTECTS LIFE and PROPERTY

OF PURE COPPER CABLE

LIGHTNING ROD and FIXTURES

Scientifically made and guaranteed over 98% pure copper by test. Officially endorsed by MUTUAL and STATE-WIDE INSURANCE COMPANIES.

DEALERS: There's a growing demand for lightning protection. You can't handle a more profitable line.

QUALITY of BARNETT RODS is guaranteed to the purchaser. Sold only thru dealers and reliable agents. INVESTIGATE our agency proposition for 1909.

Write at once for Catalog and Booklet explaining the BARNETT SYSTEM AND PRICES. Address

JOS. BARNETT & COMPANY,

Dept. 33, Riverside, Iowa.

STANDARD HORSE NAIL CO.

NEW BRIGHTON, PA., U.S.A.

MANUFACTURE

A Full Line of Horse Nails

Send for Catalogue, Prices & Samples.

CUT THIS OUT

To the Publishers The American Artisan and Hardware Record

355 Dearborn Street, CHICAGO

Please send us THE AMERICAN ARTISAN each week for three months. At the end of that time we will remit Two Dollars for one year's subscription, or 50 cents in case we decide to discontinue.

Name.....

Address..... Town..... State.....

LUFKIN Measuring Tapes

are made in every conceivable variety, to suit every purse and purpose, but all of the same superior quality.

¶ Our extensive advertising creates a demand, that every progressive dealer should be able to satisfy.

¶ It takes but a minute and a postal to ask for our catalog—it's more than worth while.

THE LUFKIN RULE CO. Saginaw, Mich., U. S. A.

New York London, Eng. Windsor, Ont.

Please Mention The American Artisan

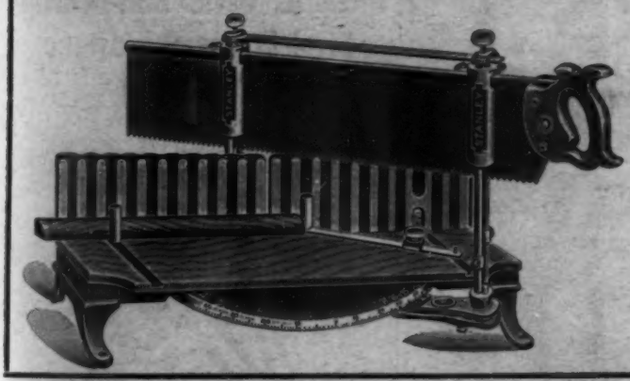
DISSTON SAWS

Run Easiest
Cut Fastest
Last Longest

To the practical Saw User this tells the full story of HIGHEST PERFECTION in Material, Temper, Design and Workmanship attained for the DISSTON BRAND OF SAWS.

HENRY DISSTON & SONS, Inc.
Keystone Saw, Tool, Steel and File Works
PHILADELPHIA, PA.

We Are Leaders



In Mitre Boxes

Having the most complete line ever offered the trade.

AND OUR PRICES ARE RIGHT.
FULLY EQUIPPED WITH LABOR SAVING ATTACHMENTS.
ACCURATE—COMPACT—STRONG and DURABLE.
If you haven't our catalogue, write for it.

The Stanley Rule & Level Co.
New Britain, Conn., U. S. A.

STRAP and T HINGES—BUTT HINGES

Also a complete line of Shelf Brackets, Barn Door Hangers, Door Bolts, etc. Our wrought surface hinges are strong, massive and beautifully finished, and every one perfect. All Goods Guaranteed.

WRITE FOR COMPLETE CATALOG.

THE GRIFFIN MFG. CO. 1500 Cherry St., Erie, Pa.

Good Window Displays Pay

See Page 59

Made in Four Sizes
1 Quart.....each, $1.00
2 Quarts.....each, 1.25
3 Quarts.....each, 1.50
4 Quarts.....each, 1.75

Champion Triple Action Ice Cream Freezer

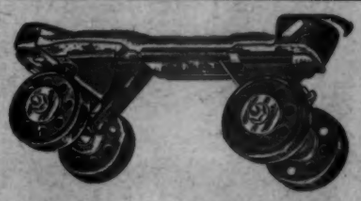
WHAT IT IS The **"Champion" Freezer** is especially adapted for Household Use. Its principles of construction; beside being absolutely New, are entirely Different, Novel and Better than any of the new style of household freezers placed on the market during the past few seasons. Besides being better, you can guarantee the **"Champion"** to your customers as being durable.

WHAT IT IS CONSTRUCTED OF The Outside Tub is made of best galvanized iron. The dasher is made of malleable iron, heavily tinned, with a Wood Scraper, which prevents the cream from adhering to the sides of the freezing can while in process of freezing. The Cylinder or Freezing Can is made from block tin (re-tinned.)

WHAT IT WILL DO We know that if you sell freezers, and wish to handle one that will give your trade satisfaction, and do all that the manufacturers claim it will do; that you can sell at about one-half the price of any of the old style freezers (besides giving you a liberal profit) and a freezer that will make the finest Ice Cream, Sherbets and Frozen Desserts in a few minutes, our **"Champion" Freezer** is the one for you to handle.

17-19 Ninth St. REID-EDELMUTH MFG. CO. Brooklyn, N. Y.

Side-Walk Skates



Our Ball Bearing Extension Skates fit the "Old Man" or the "Kid." They are the strongest adjustable skates on the market. Write for catalog and prices.

CHICAGO ROLLER SKATE CO., - - - 285 E. Madison St., Chicago, Ill.

FREEZERS

"LIGHTNING"

THAT EXCEL IN
Easy Running
Quick Freezing
Economy
Convenience
Practical Results

THAT ARE
Well Advertised
In Demand
Easily Sold
Satisfactory in Use
Of Known Reputation

"BLIZZARD"

THE "BEST MADE" because in practical use, they are convenient, compact in size, use smallest amount of ice and salt, run easily, freeze quickly, produce smoothly frozen creams or desserts with little bother and less work. We make also

MACHINE FREEZERS AND ICE BREAKERS

Sold by Leading Jobbers Catalog Sent Free

NORTH BROS. MFG. CO., Philadelphia

F. GRAFFENBERGER, Convertible Skates

FOR SKATING

FOR ROLLERING

887 4th STREET MILWAUKEE, WISCONSIN

Cash Price Offer or Royalty

Richards Cycle Ball-Bearing Steel Frame Grindstone

EASY TO SELL

Built on up-to-date mechanical principles. Stone guaranteed best quality Berea grit for general grinding. The frame is the strongest and most rigid on the market on account of its peculiar construction.

Made by
The Richards Manufacturing Co.
Aurora, Illinois

The Winners Are Known

Although the competition does not close until March 15, some dealers who have won are already known—

Not the Winners of the Cash Prizes, $100.00 in Gold, Oh, No—

but the fellows who have won new business, additional profits, new public interest in their places of business by the attractive window displays they have prepared to enter in the

Window Display Competition of THE AMERICAN ARTISAN

We don't know their names, but they are the dealers who have already sent in photos of their displays. Are you one of them? Remember March 15, is not very far off, so get busy.

$50.00 $50.00 in Gold for photograph and description of Best Window Display of Hardware.

$25.00 $25.00 in Gold for photograph and description second in excellence.

$15.00 $15.00 in Gold for photograph and description third in excellence.

$10.00 $10.00 in Gold for photograph and description fourth in excellence.

CONTESTANTS—Any hardware dealer, or his assistant or clerk, is eligible to this competition.

TIME—The photographs may be sent by mail or express, charges prepaid, and must reach this office not later than noon, March 15, 1909. Address all photographs to

THE AMERICAN ARTISAN PRIZE COMPETITION
355 DEARBORN STREET, CHICAGO, ILL.

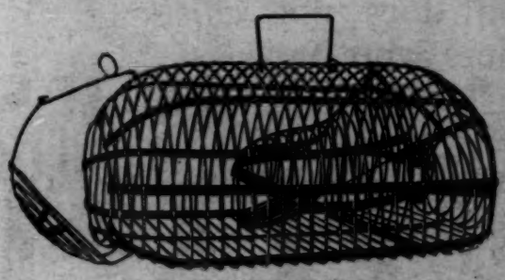
CONDITIONS—Each photograph must be signed by a fictitious name or device, and the same name or device must be put upon a sealed envelope, containing the real name and address of the contestant. This sealed envelope is to be enclosed with the photograph.

AWARD OF PRIZES—A Competition Committee of three, one of whom will be an expert window dresser and one an experienced hardware man, will pass upon all photographs and descriptions received within the prescribed time and will decide between the contestants.

THE AMERICAN ARTISAN reserves the right to publish all photographs and descriptions of same submitted in this competition.

The Bromwell Brush and Wire Goods Co., Cincinnati, Ohio

MAKE MORE RAT TRAPS THAN ANY OTHER MAKERS IN THE WORLD



ALL LOCKED RIBBED

Five Sizes. Steel Wire and Ribs. Patent Flange, Safety Doors. All Traps Lacquered. Rust Proof. Traps always set. Rats cannot escape when in the Trap. Strongest, best made, most saleable Traps in the market.

WRITE FOR 1909 CATALOGUE

We make all kinds of Brushes and Wire Goods. Started in 1819 and still at it. GET OUR PRICES.

THE TAYLOR & BOGGIS FOUNDRY CO.

CLEVELAND, OHIO

Manufacturers of

Light Gray Iron Castings

BUILDERS' HARDWARE, DAMPERS AND DAMPER CLIPS, OIL AND GAS STOVES, FURNACE LAMPS, MOLASSES GATES, LETTER BOXES, HARDWARE SPECIALTIES.

BOOKS BY MAIL.

☞ The publisher of THE AMERICAN ARTISAN will take pleasure in supplying Books, of whatever character, at catalogue prices, prepaid by mail, to any address, on receipt of price. The following are in lines especially represented by this journal.

NO BOOKS EXCHANGED

SHEET METAL WORKING.

GRAY'S PERFECT ELBOW PATTERNS.

On heavy blue print paper. From one inch to twenty inches; price $1.50, prepaid. From twenty inches to forty inches, price $1.50, prepaid. From one inch to forty inches, made in 2, 3, 4, 5, 6 7 and 8 pieces with 160 patterns and angle chart showing all angles and degrees of same gotten from 160 patterns, price $3.00, prepaid.

GRAY'S PERFECT SKYLIGHT PATTERNS.

For single pitch, gable and hip skylights. Contains 6 to 8 and 10-inch ventilator patterns and skylight chart, giving the length to cut hip and rafter bars for any size skylight up to 24 feet wide, for ¼ pitch skylights. Full set of patterns and charts. Price, $3.50, prepaid.

TIN, SHEET IRON AND COPPER PLATE WORK.

This is a work of the greatest value to all who work in sheet metal. It describes the method of laying out nearly everything which the metal worker will be called upon to make. Joints, elbows, and all kinds of kitchen utensils are fully described. The work is supplemented by rules for mensuration and hundreds of valuable receipts. By L. J. Blinn. This book contains 296 pages with 169 illustrations, bound in cloth. Price, $2.50.

TINNERS' HELPER AND PATTERN BOOK.

By H. K. Vosburgh. Rules, diagrams, tables, 123 pp, 85 figures. Price, $1.00.

PATTERN-MAKERS' HANDYBOOK.

A valuable work for the beginner. It is thoroughly practical and has a deservedly large sale. By P. N. Hasluck. Price 50c; 30c edition is paper.

THE CORNICE WORK MANUAL

Is a 240-page book, illustrated with 134 engravings. It is thoroughly indexed and attractively gotten up, with substantial red cloth covers, embossed in gold. Chapters treat of The Cutters' Bench, Drawing Tools and Angles, Cutters' Tools, The Entabulature, The Reading of Drawings, The Measuring of Cornices, Estimating, Right Angle Mitre Patterns, Bracket Patterns for Panel Sections, Right Angle Return Mitre Patterns, Patterns for a Pediment and Their Development, Patterns for a Segmental Section of a Pediment. Details and Patterns for a Finial, Bracings and Fastenings of Cornices to Buildings, Staging and Scaffolding for Cornice Work, Ornament Stamping Machine, The Management of Ropes and Hoisting Tackle, Plan and Details of a Gable and Horizontal Cornice, Detail of Slating and Slaters' Tools, Details for Horizontal and Raking Mitre Patterns, and the development of Details and Patterns of the Turrets. Price, $3.50.

THE TINSMITHS' PATTERN MANUAL.

A 250-page book, containing over 200 illustrations. By Joe K. Little. This book gives several methods for developing some of the most difficult and complicated patterns. It also devotes considerable attention to patterns of irregular shape and unequal taper. The laying off of patterns by triangulation is shown at length. This book is eminently practical and is recognized as the paramount practical authority in its chosen field. Price, $3.50 per copy.

SHEET METAL WORKERS' GUIDE.

A collection of rules and diagrams, for describing the most useful patterns ordinarily required, preceded by chapters on Sheet Metal Work, Soldering, Geometry as applied to Sheet Metal Working. By W. J. E. Crane. Price, postpaid, 60 cents.

100 TINNERS' PATTERNS.

THE AMERICAN ARTISAN Full Size Patterns printed on manilla paper, from which they are readily transferred to heavy sheets and cut out ready for use. Price, sent postpaid, for the full set of 100 patterns, $1.

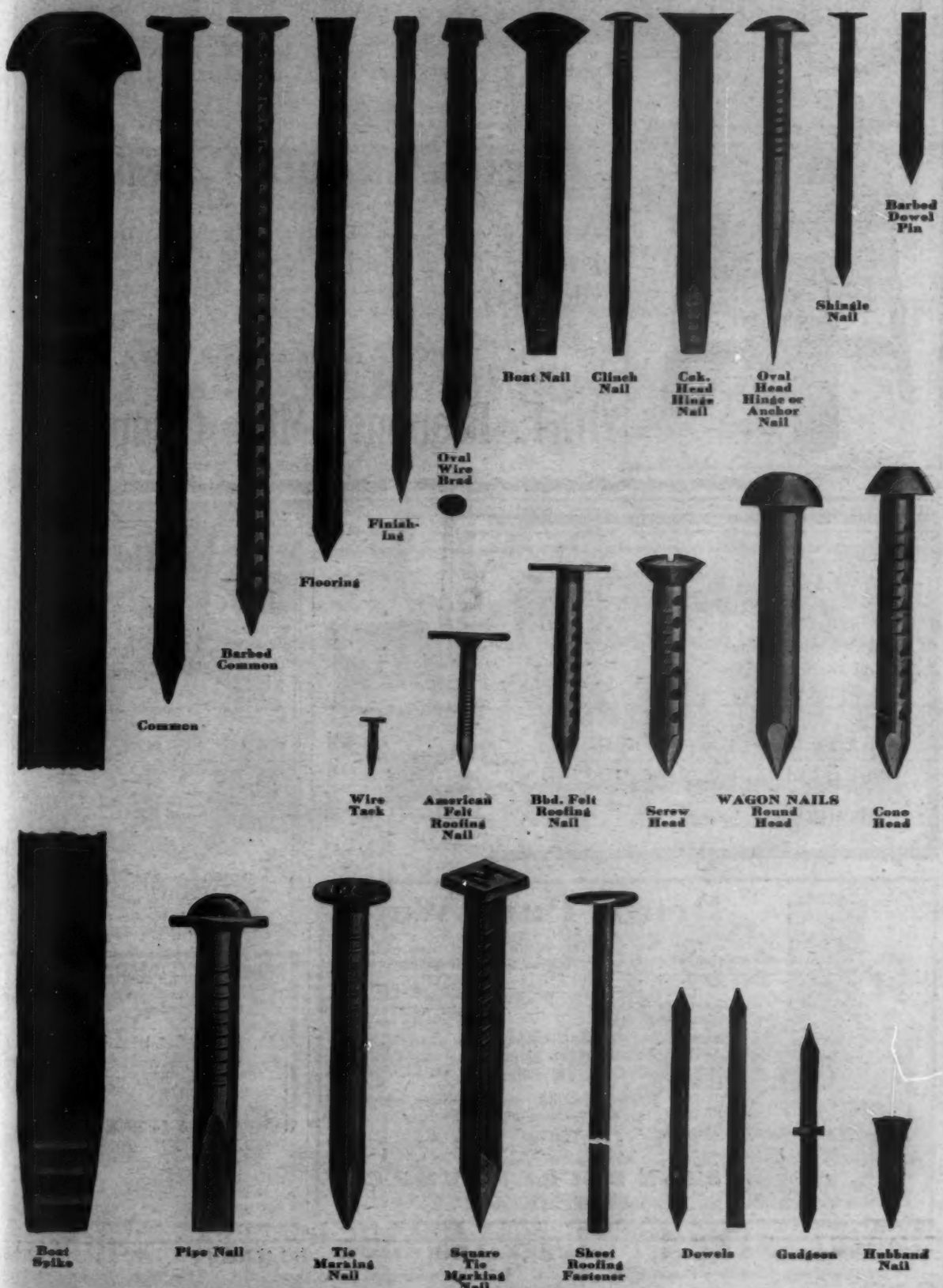
DANIEL STERN, PUBLISHER AND BOOKSELLER, 355 DEARBORN STREET, CHICAGO

American Steel & Wire Co.

Chicago New York Denver San Francisco

Maker of

NAILS, SPIKES, TACKS



You Mr. Dealer

Keep your eyes on the "Flyer Ads" now appearing in all the principle Farm Journals and Women's Magazines covering an unprecedented and most liberal proposition on our part to help you to build up a profitable and lasting business on our

"FLYER LEVER ROTARY WASHER"

A washer par-excellence. Wide awake dealers lose no time in asking for particulars. Our address is

DAVENPORT, the gateway of IOWA.

H. F. Brammer Mfg. Company

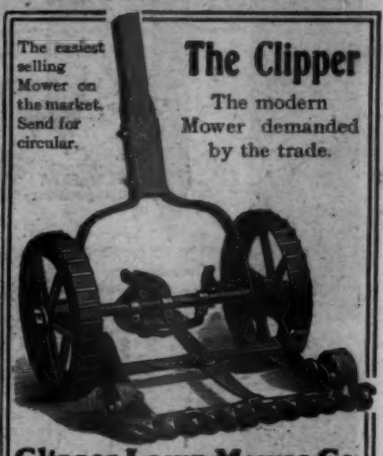
You are
Neglecting
The best seller
Of the best line
Of washing machines
If you are not selling
The White Washer.

White Lily Mfg. Co.
1500 Rockingham Road
Davenport, Iowa

The easiest selling Mower on the market. Send for circular.

The Clipper

The modern Mower demanded by the trade.



Clipper Lawn Mower Co.
DIXON, ILL.
Manufacturer of Hand and Pony Mowers and Marine Gasoline Engines

---

Drink Pure Water

The No. 50 Star Pump shown here will positively purify the water in any well or cistern in a short time.

This purifying feature alone makes it the only pump fit to put in any well where the water is used for household purposes, for it will surely save its cost in the Doctor's bill many times over.

As it is made of No. 24 gauge galvanized iron it is a very substantial and handsome outfit, and will last for years.

Our line of purifying pumps is very complete. So is our line of Galvanized Chain Pump Curbs and Tubing.

Ask your jobber for Star Pumps.

STAR BUCKET PUMP CO.
ST. LOUIS, MO.

HENKEL'S AUTOMATIC RAIN WATER SHIFTER

Guarantees Pure Water in Your Cistern

It permits only pure, clean rain water to enter the cistern. It automatically carries the first sooty, filthy drainage from the roof to the waste pipe, and not until the water runs clear and pure does it go into the cistern.

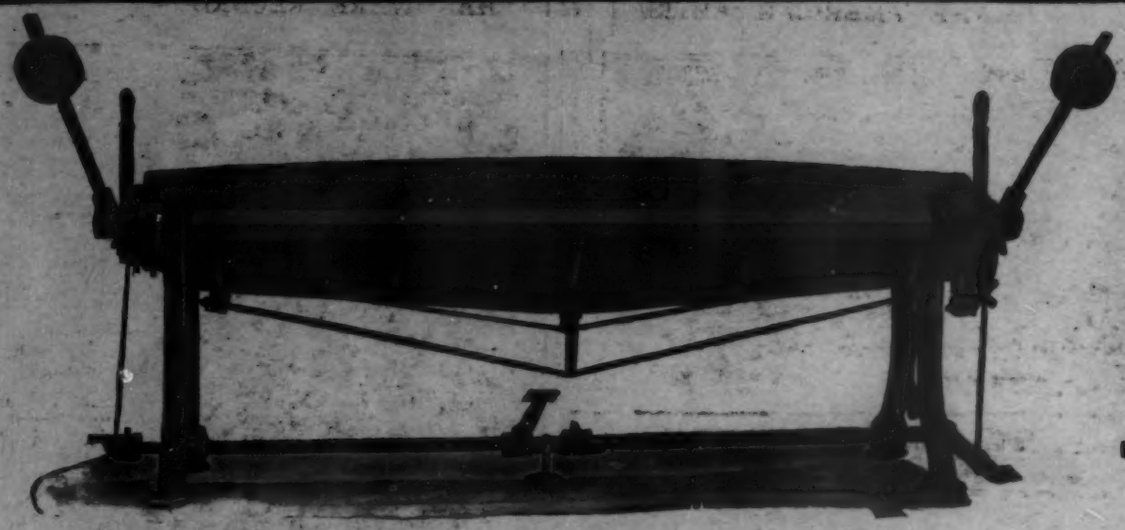
IT IS AUTOMATIC—SET IT ONCE

No more going out in the rain—no more trouble or cleaning cisterns—pure, clean water always.

Write for circulars prices and full information

THE HENKEL MFG. CO., Canal Dover, Ohio

THE AMERICAN ARTISAN.
Gentlemen: Please discontinue my ad. I have sold the stock and die. The first issue did the business. Yours truly. E. J. KETCHUM. West Duluth. Minn.



The above cut shows the general design of our Cornice Brake. These Machines are guaranteed for No 20 Gauge material and lighter, and with Heavy Bending Attachment for No. 18 Gauge. With each brake is furnished 2½-inch, 2-inch, 1½-inch and 1¼-inch wood formers, and 1-inch, ¾-inch and ⅝-inch iron forms, also friction clamps for holding same. All machines are fitted with foot treadles, quadrant gauge and three quadrant stops.

WRITE FOR CIRCULAR.

The J. M. Robinson Mfg. Co.

SHEET METAL WORKING MACHINERY

Spring Grove Avenue **Cincinnati, Ohio**

"Enterprise" Meat Choppers and

"Enterprise" Sausage Stuffers and Lard Presses

DRIVE THESE TANDEM!

Every user of an **"Enterprise" Sausage Stuffer and Lard Press** needs an **"Enterprise" Meat Chopper.** Sell them together. Push them together. Drive them "tandem."

Every dealer, and almost every buyer, knows the superiority of genuine "Enterprise" Choppers.

Lest you forget, we remind you of these points about the **"Enterprise" Sausage Stuffer and Lard Press:**

Accurately-bored cylinder. Lips on the inner tin cylinder to make easy its handling when heated. No hot iron cylinder to handle when pressing lard. A patent latch which prevents breaking of plates. Patent corrugated spout prevents air entering the casing, thus assuring preservation of sausage.

Write for catalogue describing, illustrating and listing these and other "Enterprise" specialties. Get our advertising aids for dealers.

The Enterprise Mfg. Co. of Pa.

Philadelphia, U. S. A.

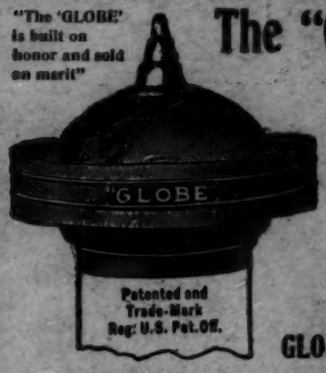
21 Murray Street, New York **438 Market Street, San Francisco**

THE IMPROVED ONE-PIECE MITER

This miter is made absolutely correct, true to shape, size and bead, and the easiest connecting slip joint. Will save your time and temper. In case your supply house cannot furnish them, send your order direct to the

J. E. WHITACRE MFG. CO.
ROCKFORD, ILL.
Manufacturers of Sheet Metal Specialties.

"The 'GLOBE' is built on honor and sold on merit"



The "GLOBE" Ventilator

in COPPER, GALVANIZED IRON and with Glass Tops for Skylight purposes.

ABSOLUTELY STORM PROOF
For Perfectly Ventilating Schools, Churches, Halls, Mills, Factory and Audience Rooms of Every Character
SMOKY CHIMNEYS CURED
"GLOBE VENTILATED RIDGING"
Send for Pamphlet
MANUFACTURED BY
GLOBE VENTILATOR CO., Troy, N. Y.

The ECLIPSE Nested Stove Pipe Thimble

Saves 80 per cent of room.
Stronger than a hand-made riveted thimble.
Always Ready to hook together.
The Lug is always on top and passes through two slots then tied. Does not interfere with the entering stove pipe.

The ECLIPSE Nested Stove Pipe Thimble is made of Galvanized Iron in sizes of 5, 6 and 7 inch.
Manufacturers of Fluted Tinware and all Styles of Flour Sifters.
STUBER & KUCK, Peoria, Ill.

ROOFERS, BEWARE!
DON'T BE DECEIVED.

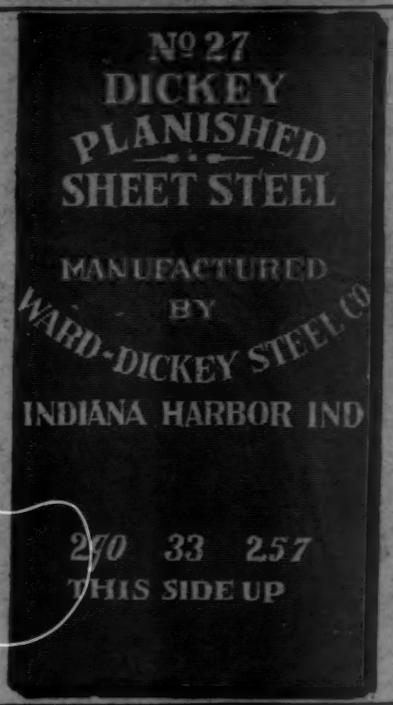
Roofing Tin is being sold stamped "Hammered Open Hearth" that does not bear any of our Registered Trade Marks. It carries an untruth embossed on its surface.

SAFEGUARD YOUR INTERESTS
by using the following brands:

Follansbee Banfield Process	Neville Old Style
Scott's Extra Coated	Lionel Old Style
Old Reliable Redipped	Follansbee Security
Protection Old Process	Duquesne
Honor Old Welsh Process	Orbit Redipped Old Style

Stamped and guaranteed
"HAMMERED OPEN HEARTH"

Follansbee Brothers Company
ONLY American Manufacturers
HAMMERED OPEN HEARTH ROOFING TIN
PITTSBURGH



Dickey Planished Sheet Steel

This Steel is Hammer Polished. It has the imported Russia Iron finish.

It stamps and wears finely, without breaking or destroying the finish. Our Steel

Stands the Heat Retains Its Color

Under long and high heats it proves its superiority over all others.

Users say:
"It works like copper—never breaks." Send for Circular and prices.

A FAST SELLING ITEM
and one which leaves the dealer a good profit is our

BERLIN **KETTLE**

Made with tin or enameled cover.
Our line consists of over 500 fast selling items.

Like all our goods it is strictly first class and sells at a reasonable price.

WRITE FOR CATALOG.
Star ★ Enameling & Stamping Co., PITTSBURGH, PA.

Trying to do business without advertising is like winking at a girl in the dark: you know what you are doing, but nobody else does.

Skylights and Cornices
Fireproof Metal Windows
(Glazed with Wire Glass)
Metal Ceilings and Side Walls
EASTLAKE METAL SHINGLES
Gutters and Conductors, Roofings of all Kinds.
Send for Catalogue and Prices.
The W. J. Burton Co.
Detroit, Mich.

The "CENTENNIAL"
RAIN • WATER • CUT • OFF

The strongest, most durable and cheapest CUT-OFF on the market.
The only single cut-off made to fit Corrugated and plain pipe and which can be used without extra pipe or elbows. For sale by all leading jobbers.
Manufactured only by
The Sullivan-Geiger Co.
19 & 21 E. South Street, Indianapolis, Ind.